The BULLETIN

American Society of Hospital Pharmacists

VOLUME 13 NUMBER 4

JULY-AUGUST 1956

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SUBSCRIPTION RATE: In the U.S. $4.50 per year (six issues), single copies 75 cents; Foreign $5 per year, single copies 85 cents. CHANGES OF ADDRESS should be directed to the Division of Hospital Pharmacy, American Pharmaceutical Association, 2215 Constitution Ave. N.W. Washington 7, D.C.

The American Society of Hospital Pharmacists, an affiliate of the American Pharmaceutical Association, is a national organization devoted to the profession of hospital pharmacy and dedicated to the improvement of pharmaceutical service in the interest of better patient care in hospitals.

IN THIS ISSUE

THE BULLETIN is published bimonthly at Hamilton, Illinois, by the American Society of Hospital Pharmacists in cooperation with the Division of Hospital Pharmacy of the American Pharmaceutical Association. Editorial office at 1313 East Ann Street Ann Arbor, Michigan. Entered as second class matter July 19, 1951 at the post office at Hamilton, Illinois. CONTRIBUTIONS will be accepted if they are of general interest to those in hospital pharmacy. The editors reserve the right to revise all material submitted, if necessary. The American Society of Hospital Pharmacists and the American Pharmaceutical Association assume no responsibility for the statements and opinions advanced by contributions to THE BULLETIN. Views expressed in the editorials are those of the editor and do not necessarily represent the official position of either the American Society of Hospital Pharmacists or the American Pharmaceutical Association.

NEW CONCEPT IN URINE-SUGAR TESTING

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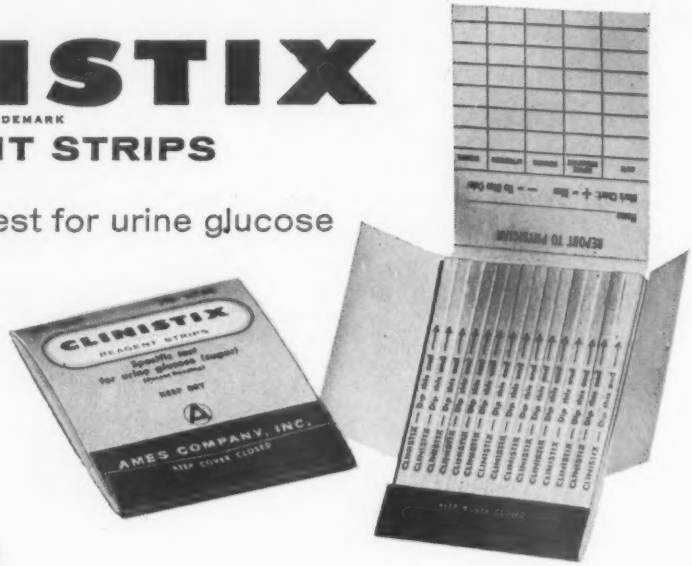
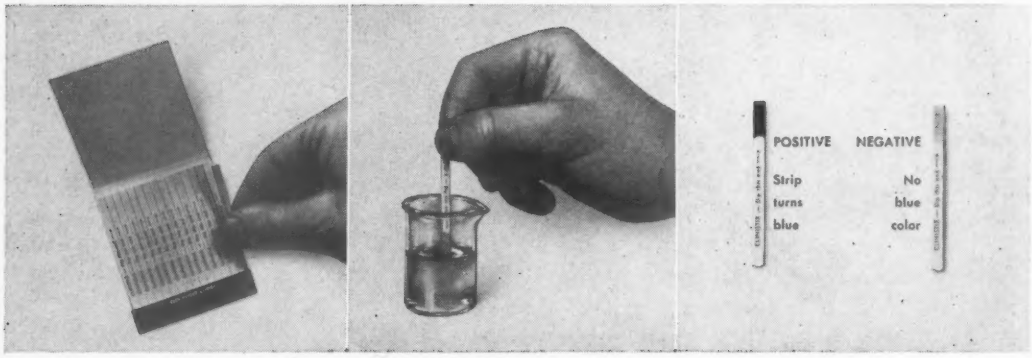
specific enzyme test for urine glucose



just dip and read



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DRUG EVALUATIONS

by the Council on Pharmacy and Chemistry of the American Medical Association

The following monographs and supplemental statements on drugs have been authorized by the Council on Pharmacy and Chemistry of the American Medical Association for publication and inclusion in *New and Nonofficial Remedies*. They are based upon the evaluation of available scientific data and reports of investigations. In order to make the material even more valuable, dosage forms and preparations of individual drugs have been added to the monographs. These dosage forms and preparations were not taken from material published in the *Journal of the American Medical Association* by the Council on Pharmacy and Chemistry; rather, they were obtained from such manufacturers' brochures, news releases, etc., which were available to us at the time of publication. An attempt has been made to make the list of dosage forms as complete as possible. However, no guarantee can be made that the list of preparations is complete and it is suggested that hospital pharmacists consult manufacturers' releases for additional dosage forms and preparations.

The issues of the *Journal of the American Medical Association* from which each monograph has been taken is noted under each monograph. Monographs in this issue of THE BULLETIN include those published in the *Journal* to July 1, 1956.

INDEX TO EVALUATED DRUGS, THIS ISSUE

INDEX TO EVALUATED DRUGS PUBLISHED IN THE MAY-JUNE ISSUE OF THE BULLETIN

Busulfan

Myleran®

BUSULFAN is the tetramethylene ester of methanesulfonic acid.—1,4-dimethanesulfonoxybutane.—The structural formula of busulfan may be represented as follows:

Actions and Uses

Busulfan, a disulfonic acid ester chemically unrelated to the nitrogen mustards and triethylene melamine, resembles these compounds pharmacologically in that it is an active alkylating agent. The cytotoxic actions of busulfan, however, do not affect the germinal tissues, lymphatic tissues, or the intestinal epithelium but are largely restricted to the bone marrow. In small doses, the drug selectively depresses proliferation of the granulocytic elements and, to a lesser extent, thrombocytopoiesis. In larger doses, erythrocyte and lymphocyte proliferation is depressed, and hypoplasia of the marrow eventually ensues. Although busulfan is not soluble in water, it is absorbed in active form from the gastrointestinal tract and is thus effective by the oral route. To date, little is known of its metabolic fate or excretion.

Because of its selective depressant action on granulocytopoiesis, busulfan is valuable in the treatment of chronic granulocytic (myelogenous, myeloid) leukemia. Although some hematologists advocate use of the drug in the initial therapy of the disease, most consider x-ray therapy or sodium radio-phosphate (P^{32}) preferable for this purpose. Whether used initially or adjunctively with radiation, however, busulfan produces remissions in a significant percentage of patients. These remissions are characterized by an increase in the hemoglobin level and circulating erythrocytes, a decrease in the white blood cell count, reduction of spleen size, and a feeling of general well-being. The periods of remission vary from weeks to months and may not be apparent until several weeks after initiation of therapy. Some hematologists favor discontinuing therapy if and when complete remission is obtained and reinstating it only when evidence of relapse occurs. Other authorities favor maintenance therapy. In common with other chemotherapeutic agents, therapeutic effectiveness diminishes with continued use.

Although busulfan depresses hematopoiesis, it is indicated only in chronic granulocytic leukemia and should not be used in terminal cases or in the acute phase of the disease. It is ineffective in acute leukemia, chronic lymphocytic leukemia, Hodgkin's disease, malignant lymphoma, or solid tumors.

The clinical toxicity of busulfan is related chiefly to production of thrombocytopenia and generalized bone marrow depression. The dosage for initial and maintenance therapy should be governed not only by the subjective response of the patient but also by the hematological response. Complete blood cell counts, including thrombocyte levels, are necessary at least once each week, preferably more often. In the event of hemorrhagic manifestations, a precipitous drop in leukocyte count, or abnormal depression of bone marrow, busulfan should be withdrawn for 10 to 20 days. Extreme caution should be exercised in administering the drug to patients with bone marrow previously depressed by other therapy.

Dosage

Busulfan is administered orally. The usual initial dose, which must be based on the hematological response, is 2 to 6 mg. daily. If bleeding tendencies, precipitous drop in leukocyte count, or generalized bone marrow depression do not ensue, its use is continued on a daily basis until clinical improvement is noted. This may require 3 or 4 weeks to several months. If maintenance therapy is deemed advisable once the patient is in remission, the usual dose for this purpose is 1 to 3 mg. daily.

Preparations for use as stated for the foregoing drug are marketed under the following name: Myleran.

Burroughs Wellcome & Company, Inc. cooperated by furnishing scientific data to aid in the evaluation of busulfan.

—J. Am. Med. Assoc. 161:63 (May, 5, 1956)

Preparations

Tablets Busulfan (Myleran) 2 mg., scored.

Cryptenamine Acetates

Unitensen® Acetates

CRYPTENAMINE ACETATES is the acetate salts of alkaloids derived from an extract of Veratrum viride.—The structural formulas of the component alkaloids have not been determined.

Actions and Uses

Cryptenamine acetates shares the actions, uses, and toxicity of other parenterally administered extracts of Veratrum viride.

Dosage

Cryptenamine acetates is administered by intravenous or intramuscular injection. For the management of eclampsia (convulsive toxemia) and hypertensive crisis (encephalopathy), the drug is administered intravenously. For intravenous administration, 1 mg. (0.5 cc. of a solution containing 2 mg. per cubic centimeter) is diluted with 20 cc. of 5% dextrose in water and infused at a rate of approximately 1 cc. per minute. During infusion, blood pressure readings should be made initially at one-minute intervals and the infusion slowed in accordance with the reduction in pressure. If a precipitous fall occurs, infusion should be temporarily discontinued and not resumed for at least 5 minutes, after which it may again proceed until the blood pressure is reduced to the desired level. Subsequent blood pressure measurements should be continued at such intervals as are necessary to determine the need for further infusion. The intravenous administration of 50 mg. of pentobarbital sodium is indicated when emesis occurs.

Once blood pressure is stabilized, therapy may be maintained as follows: In the treatment of preeclampsia (nonconvulsive toxemia) or maintenance therapy of hypertensive crises, cryptenamine acetates is administered by intramuscular injection. In preeclampsia an initial dose of 1 mg. (0.5 cc. of a solution containing 2 mg. per cubic centimeter) may be repeated hourly if necessary and increased by 0.2 mg. increments until blood pressure is reduced to the desired level. Satisfactory maintenance of pressure can generally be achieved by injections at intervals of 3 to 6 hours. Both pulse and blood pressure should be recorded at 30-minute intervals as a guide to intramuscular administration.

TODAY's resistant pathogens are the tough survivors of a dozen widely used antibiotics. Certain organisms, notably *Staphylococcus aureus*[4] and susceptible strains of *Proteus vulgaris* produce infections which have been resistant to *all* clinically useful antibiotics.

To augment your armamentarium against these resistant infections, 'CATHOMYCIN' (Novobiocin, Merck), derived from an organism recently discovered and isolated in the Merck Sharp & Dohme Research Laboratories[1], is now available.

SPECTRUM—'CATHOMYCIN'[1, 2, 3, 5, 6] has also been shown to be active against other organisms including—*D. pneumoniae*, *N. intracellularis*, *S. pyogenes*, *S. viridans* and *H. pertussis*, but clinical evidence must be further evaluated before 'CATHOMYCIN' can be recommended for these pathogens.

ACTION—'CATHOMYCIN' in optimum concentration is bactericidal. Cross-resistance with other antibiotics has not been observed.[7]

TOLERANCE—'CATHOMYCIN' is generally well tolerated by patients.[5, 6, 8, 9, 10, 11]

ABSORPTION—'CATHOMYCIN' is readily absorbed[5, 6, 9] and oral dosage produces significant blood and tissue levels which persist for at least 12 hours.[7]

'CATHOMYCIN' SODIUM

(Crystalline Sodium Novobiocin, Merck)

INDICATIONS: Clinically 'CATHOMYCIN' has proved effective for cellulitis, carbuncles, skin abscesses, wounds, felons, paronychiae, varicose ulcer, pyogenic dermatoses, septicemia, bacteremia, pneumonia and enteritis due to *Staphylococcus* and infections caused by susceptible strains of *Proteus vulgaris*.[6, 7, 8, 9, 10, 11, 12, 13, 14]

Also, it is of particular value as an adjunct in surgery since staphylococcic infections seem prone to complicate post-operative courses.

SUPPLIED: 'CATHOMYCIN' Sodium (Crystalline Sodium Novobiocin, Merck) in capsules of 250 mg., bottles of 16.

'CATHOMYCIN' *is a trademark of Merck & Co., Inc.*

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SHARP & DOHME

Philadelphia 1, Pa.
DIVISION OF MERCK & CO., INC.

Preparations for use as stated for the foregoing drug are marketed under the following name: Unitensen Acetates.

Irwin, Neisler & Company cooperated by furnishing scientific data to aid in the evaluation of cryptenamine acetates.

—*J. Am. Med. Assoc.* *161*:64 (May 5, 1956)

Preparations

Injection Cryptenamine (Unitensen) Acetates 2 mg./ml.; 5 ml. ampuls.

Cryptenamine Tannates

Unitensen® Tannates

CRYPTENAMINE TANNATES is the tannate salts of alkaloids derived from an extract of Veratrum viride.—The structural formulas of the component alkaloids have not been determined.

Actions and Uses

Cryptenamine tannates is similar in actions, uses, and toxicity to other orally administered preparations of Veratrum viride.

Dosage

Cryptenamine tannates is administered orally to control moderate to severe hypertension. The initial dosage is 2 mg. twice daily. If the patient is hospitalized, this dosage may be increased on a day-to-day basis until the desired blood pressure level is reached. For ambulatory patients, dosage should not be increased more frequently than once a week; some clinicians further advise daily determinations of blood pressure. When the total daily dose exceeds 4 mg., the drug should be taken in three divided doses. The first dose usually is administered after breakfast and should be larger than that administered in the afternoon but smaller than that administered before retiring. In order to prevent the tendency toward nausea, periodic interruptions in therapy may be necessary.

Preparations for use as stated for the foregoing drug are marketed under the following name: Unitensen Tannates.

Irwin, Neisler & Company cooperated by furnishing scientific data to aid in the evaluation of cryptenamine tannates.

—*J. Am. Med. Assoc.* *161*:64 (May 5, 1956)

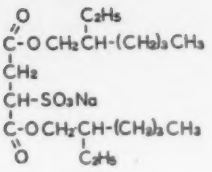
Preparations

Tablets Cryptenamine (Unitensen) Tannates 2 mg.

Dioctyl Sodium Sulfosuccinate U.S.P.

Colace®
Doxinate®

DIOCTYL SODIUM SULFOSUCCINATE, U. S. P. is bis-2-ethylhexyl sodium sulfosuccinate.—The structural formula of dioctyl sodium sulfosuccinate may be represented as follows:



Actions and Uses

Dioctyl sodium sulfosuccinate is a surface-active compound sometimes employed as a dispersing agent in externally applied preparations of drugs. The compound is relatively inert pharmacologically when administered orally but lowers surface tension in the gastrointestinal tract. Thus, internally it acts in a manner similar to that of detergents and may permit water and fatty material to penetrate and to be better mixed with the fecal material. This often results in a softer and more homogeneous stool. Limited clinical evidence suggests that the drug exerts little effects on the absorption of fats or fat-soluble vitamins in normal patients or those with cystic fibrosis of the pancreas or with celiac disease. When the drug is given in therapeutic doses, no irritation of the large intestine has been observed.

Dioctyl sodium sulfosuccinate is useful as an aid in the treatment of constipation. Its administration has resulted in softer fecal masses in patients with impaction associated with megacolon, anal fissure, and postoperative anal atresia. It also has been employed successfully in bedridden geriatric patients or infants convalescing from poliomyelitis. Clinical experience with the use of dioctyl sodium sulfosuccinate in less serious but more common types of constipation is not extensive at the present time.

The toxicity of the drug appears to be negligible, and doses far in excess of the therapeutic range have been administered without untoward effects. Because it is sometimes administered with mineral oil, the possibility exists that it might promote the absorption of the mineral oil, with resultant tissue reactions in the mesenteric lymph nodes or liver. Until this possibility can be more fully evaluated, prolonged administration of dioctyl sodium sulfosuccinate with mineral oil probably should be avoided.

Dosage

Dioctyl sodium sulfosuccinate is administered orally in average doses of 10 to 20 mg. daily for infants and children and from 10 to 60 mg. daily for adults. In certain cases, the daily administration of 50 to 100 mg. in divided doses is required.

Preparations for use as stated for the foregoing drug are marketed under the following names: Colace; Doxinate.

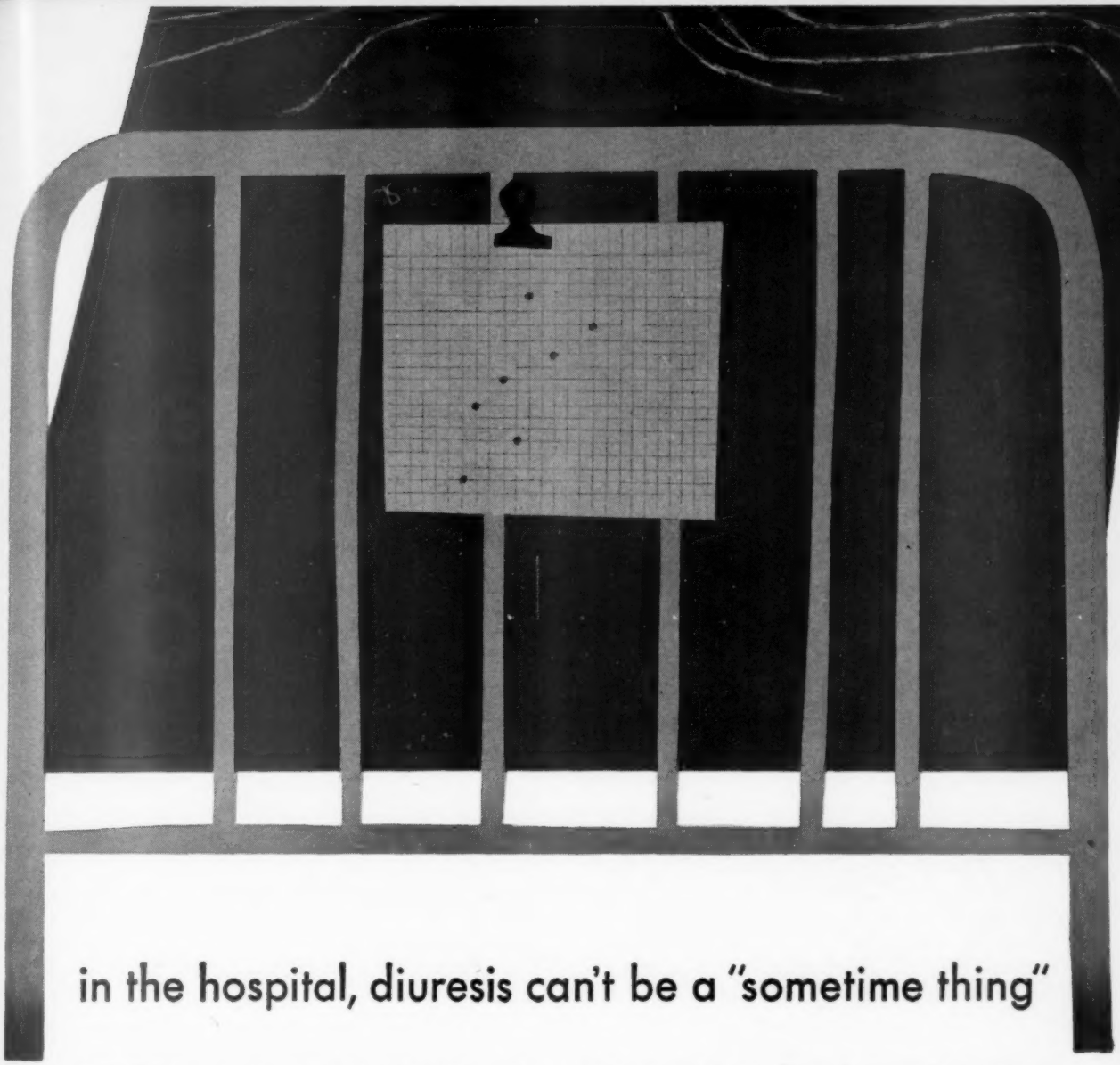
Lloyd Brothers, Inc. and Mead Johnson & Company cooperated by furnishing scientific data to aid in the evaluation of dioctyl sodium sulfosuccinate.

—*J. Am. Med. Assoc.* *161*:65 (May 5, 1956)

Preparations

Capsules Dioctyl Sodium Sulfosuccinate 20 mg. (Doxinate) and 50 mg. (Colace).

Solution Dioctyl Sodium Sulfosuccinate 1%; 30 ml. dropper bottles and 500 ml. bottles (Colace), and 60 ml. dropper bottles (Doxinate).



in the hospital, diuresis can't be a "sometime thing"

For the hospitalized cardiac, the diuretic you employ must work the first time or there may not be another time. This is why more hospitals use MERCUHYDRIN to insure initial adequate diuresis. Consistently the standard by which all other diuretics are judged, MERCUHYDRIN can be depended upon to meet the patient's needs in overcoming the effects of fluid retention in acute congestive failure.

And once the patient is over the acute phase, both he and your nursing staff will appreciate the convenience and effectiveness afforded by oral NEOHYDRIN. This "full-time" oral organomercurial diuretic has proved its value in replacement of injections in all degrees of heart failure.

for initial control of severe failure

MERCUHYDRIN®
SODIUM
(BRAND OF MERALLURIDE INJECTION)

for sustained oral diuresis

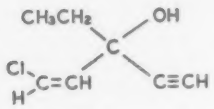
TABLET
NEOHYDRIN®
(BRAND OF CHLORMERODRIN)
(18.2 MG. OF 3-CHLOROMERCURI-2-METHOXY-PROPYLUREA EQUIVALENT TO 10 MG. OF NON-IONIC MERCURY IN EACH TABLET)

LAKESIDE

Ethchlorvynol

Placidyl®

ETHCHLORVYNOL is ethyl β-chlorovinyl ethynyl carbinol.—The structural formula of ethchlorvynol may be represented as follows:



Actions and Uses

Ethchlorvynol, a tertiary acetylenic carbinol, contains a β-chlorovinyl group that distinguishes it from less active compounds of this series. It has been shown to possess hypnotic and anticonvulsant properties in laboratory animals. In humans, ethchlorvynol exerts a mild hypnotic action. Its effect is less profound and not as predictable as that obtained with the barbiturates. In contrast to the barbiturates, ethchlorvynol has not been reported to possess addicting properties, and the incidence of "hangover" effects is less. At effective dosage levels, ethchlorvynol acts rather promptly after administration. Its duration of action is approximately 5 hours. It is absorbed rapidly from the gastrointestinal tract. Animal studies indicate that it is metabolized to an appreciable extent in the liver. The kidneys do not appear to be involved in its elimination.

In clinical trials, ethchlorvynol has proved useful for the induction of sleep in selected patients with simple insomnia. Where pain or extreme anxiety are complicating factors, the drug may not be as efficient. It is therefore useful primarily for patients with mild agitation or mild tension and for patients in whom the use of barbiturates is inadvisable or contraindicated. The drug has not been evaluated as a daytime sedative.

Clinical toxicity studies and long-term feeding experiments in animals have failed to reveal any serious deleterious effects associated with the use of ethchlorvynol. It appears to have a wide margin of safety with fewer and less intense side-effects than are observed after use of barbiturates. Evidence to date has shown no tendency toward development of psychic dependence or habituation; however, until more extensive clinical experience with ethchlorvynol is gained, patients receiving the drug over prolonged periods should be carefully observed for signs of toxic reaction.

Dosage

Ethchlorvynol is administered orally. For the treatment of ordinary insomnia, 0.5 gm. may be administered at bedtime.

Preparations for use as stated for the foregoing drug are marketed under the following name: Placidyl.

Abbott Laboratories and Pfizer Laboratories, Division of Chas. Pfizer & Company, Inc. cooperated by furnishing scientific data to aid in the evaluation of ethchlorvynol.

—*J. Am. Med. Assoc.* *161*:65 (May 5, 1956)

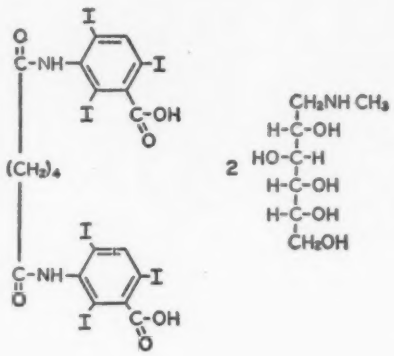
Preparations

Capsules Ethchlorvynol (Placidyl) 0.5 Gm.

Iodipamide Methylglucamine

Cholografin® Methylglucamine

IODIPAMIDE METHYLGLUCAMINE is the bis N-methylglucamine salt of 3-3'-(adipoyldiimino)bis[2,4,6-tri-iodobenzoic acid].—The structural formula of iodipamide methylglucamine may be represented as follows:



Actions and Uses

The methylglucamine salt of iodipamide is indicated for the same purposes and is subject to the same precautions as the sodium salt. (See the monograph on sodium iodipamide in THE JOURNAL, Nov. 26, 1955, p. 1295.) The drug provides the same degree of visualization of the biliary tract as the sodium salt, but it can be given in a more concentrated solution.

Dosage

Iodipamide methylglucamine is administered intravenously. The usual dose for adults is 20 cc. of a 40% solution (8 gm.), which is the approximate equivalent of 40 cc. of a 20% solution of the sodium salt.

Preparations for use as stated for the foregoing drug are marketed under the following name: Cholografin Methylglucamine.

E. R. Squibb & Sons, Division of Olin Mathieson Chemical Corporation, cooperated by furnishing scientific data to aid in the evaluation of iodipamide methylglucamine.

—*J. Am. Med. Assoc.* *160*:1405 (Apr. 21, 1956)

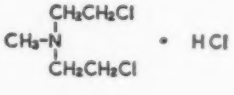
Preparations

Injection Iodipamide (Cholografin) Methylglucamine 52%; 20 ml. ampuls, with 1 ml. sensitivity ampuls.

Mechlorethamine Hydrochloride

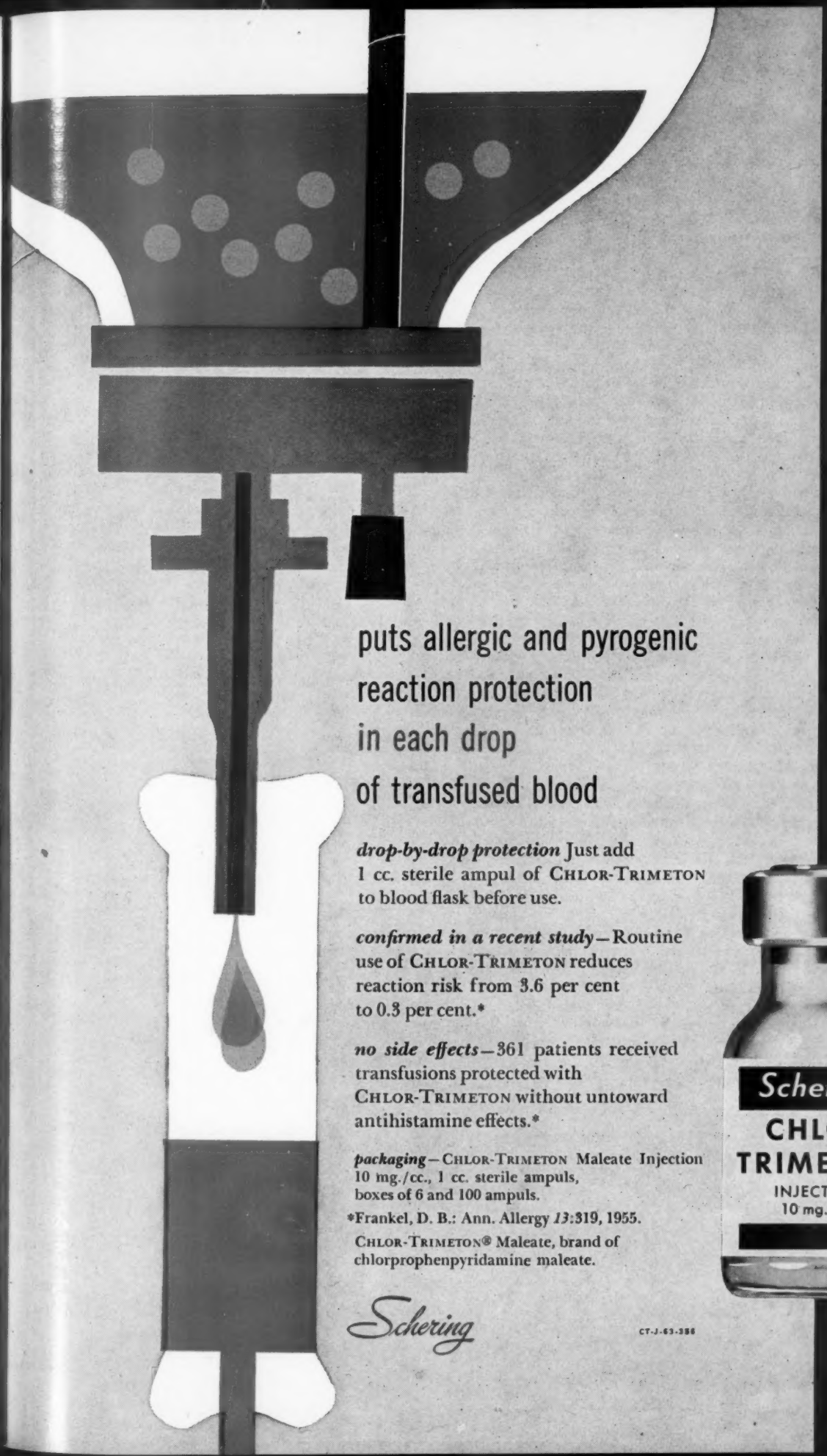
Mustargen® Hydrochloride

MECHLORETHAMINE HYDROCHLORIDE is 2,2'dichloro-N-methyldiethylamine hydrochloride.—Methyl-bis(beta-chloro-ethyl)amine hydrochloride. The structural formula of mechlorethamine hydrochloride may be represented as follows:



Actions and Uses

Mechlorethamine hydrochloride, a nitrogen mustard also known as HN_2, is a nitrogen analogue of sulfur mustard, the vesicant gas of World War I. The drug



puts allergic and pyrogenic reaction protection in each drop of transfused blood

drop-by-drop protection Just add 1 cc. sterile ampul of CHLOR-TRIMETON to blood flask before use.

confirmed in a recent study—Routine use of CHLOR-TRIMETON reduces reaction risk from 3.6 per cent to 0.3 per cent.*

no side effects—361 patients received transfusions protected with CHLOR-TRIMETON without untoward antihistamine effects.*

packaging—CHLOR-TRIMETON Maleate Injection 10 mg./cc., 1 cc. sterile ampuls, boxes of 6 and 100 ampuls.

*Frankel, D. B.: Ann. Allergy *13*:319, 1955.

CHLOR-TRIMETON® Maleate, brand of chlorprophenpyridamine maleate.

Schering

CT-J-63-386

is highly toxic, both locally and systemically, and can produce a variety of actions, depending on the dosage administered. When administered intravenously to man or animals, the drug is rapidly removed from the blood stream and reacts quickly with the tissues. In experimental animals, lethal parenteral doses of mechlorethamine hydrochloride produce a powerful stimulation of the central nervous system and intermittent convulsions precede death, which usually results from respiratory failure. Progressive muscular paralysis follows subconvulsive doses. Minimum lethal doses administered to experimental animals produce a typical delayed death syndrome that consists of anorexia, weight loss, profuse vomiting, hemorrhagic enteritis with diarrhea, depression of hematopoiesis, and disturbances of electrolyte and water balance. There is no antidote; despite vigorous corrective therapy, death inevitably ensues, usually in 3 to 7 days. Like the parent sulfur mustard, mechlorethamine hydrochloride is a powerful vesicant; inhalation of dusts or vapor and contact with skin or mucous membranes produce severe local necrotic reactions.

The therapeutic use of mechlorethamine hydrochloride is based upon its cytotoxic and growth-inhibiting actions. Although it is cytotoxic for all cells, the compound has a special affinity for the intestinal and corneal epithelium, germinal tissues, the lymphatic and hematopoietic systems, and rapidly proliferating cells of certain neoplastic growth. In clinical use, bone marrow and lymphatic tissues are the only normal tissues significantly affected. In general, the mechanism of the cytotoxic action of the nitrogen mustards is at present imperfectly known; however, it is well established that compounds of this class inhibit cell division in the premitotic or resting phase. The striking similarity in toxic effects, biological action, and therapeutic results between nitrogen mustards and irradiation of the whole body with x-rays has resulted in the classification of the former as radiomimetic agents.

Mechlorethamine hydrochloride is useful for the palliative treatment of certain neoplastic diseases, particularly those of lymphoid and hematopoietic tissues. These include Hodgkin's disease, lymphosarcoma, certain types of chronic leukemia, lymphoblastomas of the skin, and mycosis fungoides. It is not intended as a substitute for accepted forms of radiation therapy, but rather as supplementary and complementary treatment in appropriate cases. Because of the toxicity and unpleasant side-effects that follow the administration of mechlorethamine hydrochloride, indiscriminate trial of this drug in patients with inoperable cancer or in the terminal stage of this disease is entirely unjustified.

Before therapy with mechlorethamine is initiated, an accurate histological diagnosis of the disease must be made and the hematological status of the patient determined. It is essential to understand the hazards to be encountered and the therapeutic effects to be expected. An adequate clinical history is important, and careful judgment must be exercised in the selection of patients. If the indication is not clear, the drug should not be used.

Mechlorethamine hydrochloride is usually most effective in certain generalized, but not terminal, neoplastic diseases. For localized involvement, x-ray therapy is generally the initial treatment of choice. The drug may palliate the disease in patients who have become refractory to radiation therapy, and it can be used in alternating courses with x-rays to control systemic symptoms; however, subsequent courses of nitrogen mustard therapy are usually not as effective as the preceding course.

In suitable cases of Hodgkin's disease, mechlorethamine hydrochloride may cause temporary remissions of varying duration. X-ray therapy should be employed in early and localized disease and the use of the drug reserved for widely disseminated lesions that are either refractory to radiation or are too widespread to be adequately treated by conventional radiation techniques or in cases with gross systemic symptomatology without localized lesions. The drug is also of value in producing temporary relief of pressure on the trachea and superior vena cava in patients with thoracic lesions. In such cases, mechlorethamine may be the treatment choice, since it does not produce the local edema that usually follows radiation therapy.

In certain histological types of malignant lymphoma, mechlorethamine hydrochloride is useful after initial local x-ray therapy in the palliation of widely disseminated lesions. It has been most effective in appropriate cases of giant follicular lymphosarcoma; remissions lasting for months may be expected to occur. Although the drug is somewhat less effective in small cell or lymphocytic lymphosarcoma, its alternative employment with radiation will sometimes result in partial remission of variable duration. The drug is rarely effective in reticulum cell lymphosarcoma.

Although mechlorethamine hydrochloride has been widely employed for the palliative therapy of chronic granulocytic (myelogenous, myeloid) leukemia, other forms of therapy are currently considered superior for this purpose. These include x-ray, either as a total body spray or intensive local irradiation of the spleen, sodium radio-phosphate (P^{32}) and busulfan; however, many hematologists prefer to treat this disease with the sequential use of chemotherapeutic agents and radiation. In such a scheme, mechlorethamine hydrochloride is most useful in the early stage of the disease but is ineffective in terminal cases. Remissions, usually lasting 1 to 3 months, are characterized by a fall in the leukocyte count, an increase in the hemoglobin level, regression of enlarged lymph nodes and spleen, and general improvement.

Mechlorethamine hydrochloride has been used in patients with chronic lymphocytic (lymphatic, lymphoid) leukemia. The tendency of the drug to produce a greater destructive effect on the normal bone elements than on the leukemia lymphocytes has limited its usefulness. The drug is completely ineffective in the treatment of all types of acute leukemia.

In mycosis fungoides, mechlorethamine has been reported to produce relief of pruritus and regression of lesions in a significant number of patients with extensive skin involvement. Localized or early lesions should be treated by conventional x-ray therapy, and, if satisfactory improvement is not obtained, mechlorethamine may be given in the same manner as for Hodgkin's disease.

Bronchogenic carcinoma is the only epithelial tumor that responds significantly to therapy with mechlorethamine hydrochloride. The susceptibility of the tumor is largely influenced by its histological characteristics; anaplastic lesions are much more amenable to therapy than are the more differentiated tumors. When roentgenologic examination or exploratory thoracotomy reveals that the neoplasm is inoperable or when extensive metastases are present, the initial treatment of choice is generally x-ray therapy; however, mechlorethamine may be administered in cases not suitable for, or not responding to, x-ray therapy. Remissions include transient regression of lesions and resorption of pleural effusions in addition to alleviation of cough, dyspnea, hemoptysis, pain, and weakness. The remissions are of short duration, and subsc-

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quent courses of drug therapy are less effective. Mechlorethamine is indicated as the initial therapy only in superior vena cava (mediastinal) compression syndrome associated with inoperable bronchogenic carcinoma.

Because of the serious nature of its local and systemic toxic effects, the clinical use of mechlorethamine hydrochloride involves numerous immediate and delayed hazards and should be administered only to patients who are under close hospital supervision. Thrombosis and thrombophlebitis may result from direct contact of mechlorethamine with the intima of injected veins. Care should be taken to avoid high concentrations and prolonged contact with the drug, especially in patients who have elevated pressure in the antebrachial veins; such as those with mediastinal tumor compression. Extravasation of the drug into subcutaneous tissues results in painful inflammation with attending induration and sloughing. Infiltration of 0.16 molar solution of sodium thiosulfate together with application of an ice compress may minimize the local reaction.

The intravenous administration of mechlorethamine hydrochloride is accompanied by unpleasant side-reactions and possible damage to the hematopoietic system. Characteristic toxic effects are nausea, vomiting, and depression of the formed elements of the circulating blood.

Nausea and vomiting, which have sometimes been so severe as to precipitate vascular accidents in patients with a hemorrhagic tendency, usually occur 1 to 3 hours after administration of the drug. Emesis may disappear in the first 8 hours, but nausea can persist for 24 hours or longer. Anorexia, weakness, and diarrhea also may occur. Chlorpromazine hydrochloride, either alone or with a suitable barbiturate, is valuable in controlling the nausea and vomiting and should be administered 30 to 60 minutes prior to mechlorethamine injection and as long afterward as symptoms persist.

Lymphocytopenia followed by granulocytopenia occurs after the administration of mechlorethamine hydrochloride. Occasionally, agranulocytosis supervenes. Thrombocytopenia is variable, but it usually is present 2 to 3 weeks after completion of therapy. In some cases, this may lead to bleeding from the buccal mucosa and gastrointestinal tract, petechia, and subcutaneous hemorrhage. Erythrocyte and hemoglobin levels may decline during the first 2 weeks after therapy. The anemia is usually not significant; however, it should be borne in mind that depression of the hematopoietic system may last up to 50 days after institution of therapy. A subsequent course of nitrogen mustard therapy usually should not be undertaken for at least six weeks. The decision as to the time of institution of subsequent courses of therapy with nitrogen mustard depends upon the recovery of hematopoietic activity as evidenced by the appearance of the peripheral blood. Neither mechlorethamine therapy followed by x-ray nor x-ray therapy subsequent to the use of mechlorethamine should be employed until bone marrow function has recovered. This also applies when mechlorethamine is similarly used with other cytotoxic compounds. Irradiation of such areas as the sternum, ribs, and vertebrae shortly after a course of nitrogen mustard may lead to severe hematological complications. Even if no other therapy has been employed previously, mechlorethamine should not be used in patients with severe leukopenia, thrombocytopenia, or anemia due to generalized direct invasion of bone marrow. A severe and even uncontrollable depression of the hematopoietic system may follow the administration of the usual therapeutic dose of mechlorethamine hydrochloride, particularly in patients with widespread disease and debility and in those patients who have had previous treatment with other similar agents or x-ray. If this occurs, therapy should be withdrawn and repeated transfusions, antibiotics, and general supportive measures should be administered.

Occasionally, a maculopapular skin eruption has been observed after mechlorethamine administration; this may be an idiosyncrasy and does not necessarily recur with subsequent courses. Herpes zoster has been reported, probably because a latent infection was present before therapy. In such cases, each course may be followed by overt manifestations of the viral disease.

Since the gonads are susceptible to mechlorethamine, a course of therapy may be followed by delayed menstruation or amenorrhea of several months' duration. No permanent damage to ovarian function has been observed, however. Impaired spermatogenesis has been reported in male patients at autopsy. In laboratory experiments, the nitrogen mustards have induced fetal abnormalities in pregnant mammals; thus these compounds should not be used if pregnancy exists or is suspected. They are likewise contraindicated in patients with coexistent or suspected infectious granuloma.

Dosage

Mechlorethamine hydrochloride is administered only by the intravenous route. The drug is stable when kept in dry form, but solutions are unstable and decompose with standing. A fresh solution should therefore be prepared immediately before each injection. With a sterile 10-cc. syringe, 10 cc. of a suitable solvent, such as water for injection, is injected, with aseptic precautions, into a rubber-stoppered vial containing 10 mg. of dry powdered mechlorethamine hydrochloride. With the needle still in the rubber stopper, the vial is shaken to dissolve the drug. The resultant solution contains 1 mg. per cubic centimeter. The calculated volume of solution required for a single injection is then drawn into the syringe and injected into the rubber tubing of a flowing intravenous infusion, commonly of 250 cc. of isotonic sodium chloride solution or a 5% dextrose solution. The solution remaining in the vial should be discarded.

Dosage calculations of mechlorethamine hydrochloride are based upon body weight. It is important to take into consideration the presence of edema or ascites and to base the dosage on actual weight not complicated by these factors. A total dose of 0.4 mg. per kilogram of body weight for each course of therapy is usual in most cases. This is best given in divided doses of 0.1 mg. per kilogram on each of 4 successive days. The drug also has been given as two injections of 0.2 mg. per kilogram each on consecutive days without greater toxic reaction and with equal therapeutic response. Regardless of body weight, a single dose should not exceed 8 to 10 mg.

It should be emphasized that, since the margin of safety of mechlorethamine hydrochloride is extremely narrow, considerable care must be exercised in the matter of dosage. The usual average dose should be exceeded only with extreme caution; repeated blood tests are always mandatory as a guide to subsequent therapy.

Preparations for use as stated for the foregoing drug are marketed under the following name: Mustargen Hydrochloride.

Sharp & Dohme, Division of Merck & Co., Inc. cooperated by furnishing scientific data to aid in the evaluation of mechlorethamine hydrochloride.

—*J. Am. Med. Assoc.* *161*:150 (May 12, 1956)

Preparations

Injection Mechlorethamine (Mustargen) Hydrochloride 10 mg. (with 90 mg. sodium chloride), dry vials.

'Co-Deltra'

(Prednisone, Buffered)

1956

'Co-Hydeltra'

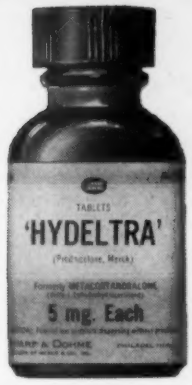
(Prednisolone, Buffered)

1956

Deltra®

(Prednisone, Merck)

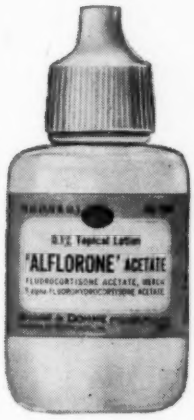
1955



'Hydeltra'

(Prednisolone, Merck)

1955



Alflorone®

Acetate
(Fludrocortisone Acetate, Merck

1954

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Multiple Compressed Tablets of 'Co-Deltra' and 'Co-Hydeltra' are two new antacid-steroid formulations designed to minimize the gastric distress often encountered with prednisone and prednisolone. CO-DELTRA, CO-HYDELTRA, DELTRA, HYDELTRA, ALFLORONE, HYDROCORTONE and CORTONE represent important prescription volume. Stock the complete line and be assured of unquestioned acceptance by both physician and patient.

SHARP & DOHME

Philadelphia 1, Pa.
DIVISION OF MERCK & CO., INC.

HydroCortone®

(Hydrocortisone, Merck)

1952

Cortone®

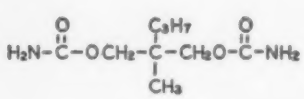
Acetate
(Cortisone Acetate, Merck)

1950

Meprobamate

Equanil®
Miltown®

MEPROBAMATE is 2-methyl-2-n-propyl-1,3-propanediol dicarbamate.—The structural formula of meprobamate may be represented as follows:



Actions and Uses

Meprobamate is the dicarbamate ester of a propanediol derivative that is chemically distinct from another propanediol derivative, mephenesin. Studies in animals indicate that meprobamate shares the central interneuronal blocking (skeletal muscle relaxant) action of mephenesin but has an action of much longer duration. Available clinical evidence indicates that it may exert a useful damping effect in certain cases of abnormal motor activity seen in athetoid and dyskinetic patients, and is sometimes effective as an antispastic agent in fibrositis where muscle spasm predominates. Results have been poor in rheumatoid arthritis. Meprobamate also exhibits anticonvulsant properties in experimental animals, but its value in epilepsy has not been clearly defined as yet. On the basis of presently available clinical evidence, the drug appears to be useful as a mild hypnotic in simple insomnia or as a tranquilizing agent that can be employed in place of potent sedatives and along with psychotherapy in the management of psychoneurotic anxiety and tension states. Meprobamate is useful as premedication in electroshock therapy to allay preshock anxiety and postshock confusion and headache. Preliminary reports indicate it may be useful in the treatment of alcoholism. Its value in paralysis agitans and in management of frank psychoses has not been established.

After systematic absorption, meprobamate is apparently conjugated with glucuronic acid in the body and excreted in the urine; about 10% is excreted unchanged. Its toxicity is low, and tolerance does not appear to develop with continued use. Allergic reactions have occurred rarely, and gastric discomfort has been observed only occasionally. Drowsiness associated with the use of meprobamate appears to be an accompaniment of its mild somnifacient action rather than a side-effect; hypnotic doses are not ordinarily associated with morning "hangover." No other side-effects have been reported.

Dosage

Meprobamate is administered orally. The usual dosage for adults is 0.4 gm. three or four times daily. For relaxation to promote sleep, a single dose of 0.4 to 0.8 gm. is taken on retiring. Response to the drug may vary in different patients.

Preparations for use as stated for the foregoing drug are marketed under the following names: Equanil; Miltown.

Wallace Laboratories, Division of Carter Products Inc., and Wyeth Laboratories, Inc. cooperated by furnishing scientific data to aid in the evaluation of meprobamate.

—*J. Am. Med. Assoc.* *160*:1405 (Apr. 21, 1956)

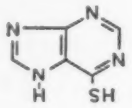
Preparations

Tablets Meprobamate (Equanil) 0.4 Gm., scored.
Tablets Meprobamate (Miltown) 0.4 Gm.

Mercaptopurine

Purinethol®

MERCAPTOPURINE is 6-purinethiol. — The structural formula of mercaptopurine may be represented as follows:



Actions and Uses

Mercaptopurine is an analogue of the nucleic acid constituent, adenine, and the purine base, hypoxanthine. It is an antagonist to purine metabolism and thus acts by interfering with nucleic acid biosynthesis. Its pharmacological actions are related to a cytotoxicity that is chiefly manifest in tissues with a high rate of nucleic acid metabolism. Thus, hypoplasia of the bone marrow and ulceration of the gastrointestinal epithelium are the outstanding toxic effects of large doses.

Mercaptopurine is useful for the treatment of acute leukemia. Although it does not affect the eventual fatal outcome of the disease, judicious use of the drug has resulted in temporary remissions and prolongation of life in a substantial proportion of patients. In acute leukemia, children generally respond more favorably to the drug than do adults. Remissions may be either complete or partial and vary in duration from only a few weeks to months. Although choice of a chemotherapeutic agent for the treatment of acute leukemia is frequently governed by previous experience, most hematologists prefer the folic acid antagonists and/or hormone administration for initial therapy. When the response to these agents is no longer satisfactory, mercaptopurine is then substituted; however, it can be used to initiate therapy. Like all other chemotherapeutic agents, mercaptopurine becomes less effective in subsequent courses of therapy. In acute leukemia in children, the undifferentiated stem cell or lymphoblastic types respond somewhat better to the drug than do the granulocytic and monocytic types. In many cases, however, cellular differentiation is difficult or impossible. In adults with acute leukemia, there is little evidence that one cell type responds better than another.

Although more study is necessary before the ultimate status of mercaptopurine in the treatment of chronic granulocytic (myelogenous, myeloid) leukemia can be ascertained, preliminary reports indicate it to be effective in producing remissions in some cases of this disease. It should not be used unless the response to better-established forms of therapy is poor. Beneficial results have been obtained in the early stages of the disease in some patients who were resistant to other forms of therapy.

Mercaptopurine also has been reported useful in the beginning of the terminal stage of chronic granulocytic leukemia when other measures are no longer effective. The drug is ineffective and contraindicated in the treatment of chronic lymphocytic leukemia, Hodgkin's disease, malignant lymphoma, and solid tumors.

The chief toxic effect of mercaptopurine is depression of bone marrow. Leukopenia appears within 5 to 10 days after initiation of therapy, and, if the dosage is excessive, thrombocytopenia and hypoplasia of the marrow ensue. Frequent blood cell counts are mandatory during therapy, since the maximum effect on hematopoiesis may be delayed and the formed elements in the peripheral blood may continue to fall for several days after cessation

of treatment. It is important, therefore, to discontinue medication at the first evidence of an abnormally large fall in the white blood cell count or of abnormal depression of the bone marrow. Nausea, vomiting, or anorexia are indicative of excessive dosage. The drug is less toxic to the mucosa of the gastrointestinal tract than are the folic acid antagonists, but ulceration of the intestinal epithelium can occasionally follow its administration. Although the drug is a purine analogue, it is not possible to antagonize its toxic effects by the administration of adenine or hypoxanthine.

Dosage

Mercaptopurine is administered orally. The usual initial dose for children and adults is 2.5 mg. per kilogram of body weight each day; however, this dosage may have to be reduced in some patients to avoid excessive depression of the bone marrow. If there is no clinical improvement and no definite evidence of leukocyte depression after 4 weeks, the dosage may be cautiously increased up to 5 mg. per kilogram each day. Most hematologists feel that maintenance therapy is indicated during periods of remission in order to prevent early relapse. This is usually accomplished by the administration of 2.5 mg. per kilogram daily; however, it should be emphasized that the dosage of mercaptopurine cannot be empirically defined but varies from patient to patient. Clinical improvement and hematological response must be relied upon as guides to dosage. Blood cell counts should be taken at intervals not to exceed one week, preferably more often, during and after therapy.

Preparations for use as stated for the foregoing drug are marketed under the following name: Purinethol.

Burroughs Wellcome & Company, Inc. cooperated by furnishing scientific data to aid in the evaluation of mercaptopurine.

—*J. Am. Med. Assoc.* 161:63 (May 5, 1956)

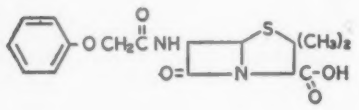
Preparations

Tablets Mercaptopurine (Purinethol) 50 mg., scored.

Phenoxymethyl Penicillin

Bicillin-Vee®
Penicillin V
Pen-Vee-Oral®
V-Cillin®

PHENOXYMETHYL PENICILLIN is penicillin V.—An antibiotic produced by fermentation that contains a phenoxymethyl group instead of the benzyl group present in penicillin G.—The structural formula of phenoxymethyl penicillin may be represented as follows:



Actions and Uses

Phenoxymethyl penicillin exhibits an antibacterial spectrum similar to that of soluble salts of penicillin G. (See the general statement on penicillin in New and Nonofficial Remedies.) Phenoxymethyl penicillin is more resistant to inactivation by gastric juices than other oral penicillin preparations and therefore is better absorbed from the gastrointestinal tract. As a result, blood levels are obtained that are higher than when a like amount of salts of penicillin G is administered by mouth. The absorption of the drug does not appear to be diminished if administered after meals. Current evidence suggests that most of the common pathogens amenable to penicillin therapy are as sensitive to phenoxymethyl penicillin as to penicillin G. In general, the therapeutic range of effectiveness of orally administered phenoxymethyl penicillin appears to be similar to that of penicillin G given orally. Unless administered in larger doses, however, phenoxymethyl penicillin is not as effective as parenterally administered aqueous preparations of penicillin G. For this reason, parenteral administration of penicillin G remains the treatment of choice in severe, acute infections caused by organisms susceptible to penicillin therapy.

Phenoxymethyl penicillin is effective in the treatment of infections caused by hemolytic streptococci, pneumococci, gonococci, and susceptible micrococci (staphylococci). It is well tolerated by mouth but, in common with all orally administered antibiotics, can cause occasional diarrhea. Like other penicillin preparations, phenoxymethyl penicillin can elicit symptoms of sensitivity ranging in severity from mild erythema and hives to frank serum sickness. To date, such symptoms have been infrequent. In rare instances its administration may also cause acute anaphylactic shock, although this is less likely than after parenteral administration of other penicillin preparations; however, it should be used with caution in patients with bronchial asthma, allergy, or a history of previous penicillin reaction. Current evidence suggests that patients with urticarial sensitivity to penicillin G may not necessarily show cross sensitivity to phenoxymethyl penicillin; in such cases, the physician should proceed with caution.

Dosage

Phenoxymethyl penicillin is administered orally. The usual dose for the treatment of moderately severe infections caused by hemolytic streptococci and susceptible micrococci is 125 mg. (200,000 units) three or four times daily. In subacute bacterial endocarditis or severe infections when bacteremia is present, a parenteral aqueous preparation of penicillin G should be employed. For the treatment of pneumonias, the initial dose of phenoxymethyl penicillin is 250 to 300 mg. (400,000 to 500,000 units) followed by 125 mg. (200,000 units) every 4 hours. To prevent recurrent attacks of rheumatic fever, 125 to 300 mg. (200,000 to 500,000 units) may be administered daily. As a prophylactic against secondary infection after minor surgical procedures in patients with rheumatic fever or heart disease, the usual dose is 125 mg. (200,000 units) every 8 hours. In acute gonorrheal infections, 125 mg. (200,000 units) every 4 hours for five or six doses has proved effective. In such cases, laboratory studies are indicated to rule out the possibility of concomitant syphilis.

Preparations for use as stated for the foregoing drug are marketed under the following names: Pen-Vee-Oral; V-Cillin.

Eli Lilly & Company and Wyeth Laboratories, Inc., cooperated by furnishing scientific data to aid in the evaluation of phenoxymethyl penicillin.

—*J. Am. Med. Assoc.* 161:456 (June 2, 1956)

Preparations

Capsules Phenoxymethyl Penicillin (V-Cillin) 125 mg. (200,000 U.) and 250 mg. (400,000 U.).

Suspension, Oral, Phenoxymethyl Penicillin (V-Cillin) 125 mg./5 ml. when mixed; 80 ml. bottles.

The **NEW** Phenothiazine Derivative

Sparine*

Promazine Hydrochloride

For the Management of the Acutely Agitated Patient

• ***The acute alcoholic*** • ***The acute psychotic*** • ***The drug addict***

A promising new agent in chemopsychotherapeutics, **SPARINE** has demonstrated impressive effectiveness in controlling acute excitation without inducing significant side-reactions.[1,2,3]

SPARINE is a new, clinically effective phenothiazine derivative, which may be administered intravenously, intramuscularly, or orally. The route and dosage are determined by the extent of central-nervous-system excitation and by the patient's response.

Supplied: Tablets, 25, 50, and 100 mg., bottles of 50 and 500; 200 mg., bottles of 500. Injection, 50 mg. per cc., vials of 2 and 10 cc.

1. Seifter, J., et al.: To be published. 2. Fazekas, J.F., et al.: M. Ann. District of Columbia **25**:67 (Feb.) 1956. 3. Mitchell, E.H.: J.A.M.A. In press.

*Trademark

Wyeth®
Philadelphia 1, Pa.

An Exclusive Development of Wyeth Research

Suspension, Oral, Phenoxymethyl Penicillin as benzathine salt (Pen-Vee) 90 mg. (150,000 U.)/5 ml. and 180 mg. (300,000 U.)/5 ml.; 60 ml. bottles.

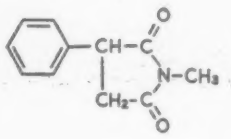
Tablets Phenoxymethyl Penicillin (Pen-Vee-Oral) 125 mg. (200,000 U.) and 300 mg. (500,000 U.).

Tablets Phenoxymethyl Penicillin 62.5 mg. (100,000 U.) with 100 mg. (100,000 U.) benzathine penicillin G (Bicillin-Vee).

Phensuximide

Milontin®

PHENSUXIMIDE is N-methyl-*a*-phenylsuccinimide.—The structural formula of phensuximide may be represented as follows:



Actions and Uses

Phensuximide, an anticonvulsant succinimide compound, differs chemically from barbituric acid, hydantoin or oxazolidine derivatives, and phenacemide. It antagonizes experimentally induced pentylenetetrazol convulsions in rats. Clinically, the drug is primarily useful in the treatment of petit mal epilepsy, but it is less effective and less potent than trimethadione and less active against mixed forms of petit mal; however, phensuximide is considered a useful addition to the armamentarium of antiepileptic drugs and may be used as the initial treatment of unmixed petit mal seizures.

Phensuximide appears to be relatively free from serious toxic effects, but it may produce such side-reactions as nausea, vomiting, muscular weakness, drowsiness, and occasional skin eruptions. Hematopoietic or serious neurological complications have not been encountered. Microscopic hematuria observed in some patients has not been shown to be caused by phensuximide therapy; however, further observations are needed before its toxicity in comparison with other anticonvulsants can be conclusively established. Until longer experience has been gained, periodic blood and urine studies are advisable in patients taking the drug for a prolonged period.

Dosage

Phensuximide is administered orally. The usual oral dosage, irrespective of age, is 0.5 to 1 gm. two or three times daily (total daily amount of 1 to 3 gm.) Individualization of the dosage is required to elicit optimum response.

Preparations for use as stated for the foregoing drug are marketed under the following name: Milontin.

Parke, Davis & Company cooperated by furnishing scientific data to aid in the evaluation of phensuximide.
—*J. Am. Med. Assoc.* *160*:1405 (Apr. 21, 1956)

Preparations

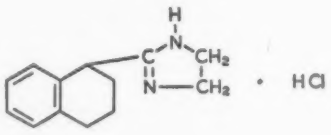
Capsules Phensuximide (Milontin) 0.5 Gm.

Suspension, Oral, Phensuximide (Milontin) 0.25 Gm./4 ml.

Tetrahydrozoline Hydrochloride

Tyzine® Hydrochloride

TETRAHYDROZOLINE HYDROCHLORIDE is 2-(1,2,3,4-tetrahydro-1-naphthyl)-2-imidazoline hydrochloride. The structural formula may be represented as follows:



Actions and Uses

Tetrahydrozoline hydrochloride is a sympathomimetic agent closely related in chemical structure and pharmacological action to naphazoline hydrochloride. When applied topically to the nasal mucosa, the drug causes vasoconstriction, which results in reduction of local swelling and congestion. It is effective for the symptomatic relief of inflammatory hyperemia and edema of the nasal mucosa such as may occur in acute and chronic rhinitis and sinusitis, hay fever and other forms of allergic rhinitis, and vasomotor rhinitis. If the use of tetrahydrozoline hydrochloride is prolonged, rebound vasodilation and chemical rhinitis may occur. Such symptoms may generally be alleviated by prompt discontinuation of all nasal medication. The drug should be administered with caution to hypertensive or hyperthyroid patients. Excessive dosages may cause severe drowsiness accompanied by profuse sweating. Coma and shock have been reported in young children after overdosage or improper administration of a 0.1% solution.

Dosage

Tetrahydrozoline hydrochloride is administered topically to the nasal mucosa, either as drops or as a spray. For adults, 2 or 3 drops of a 0.1% solution may be instilled in each nostril not oftener than every 3 hours. When a spray is used, the nozzle of a plastic bottle containing a 0.1% solution may be inserted vertically (to prevent streaming of the liquid) in each nostril and squeezed sharply three or four times. The 0.1% solution should never be administered to infants or children under 6 years of age. For these patients, 1 to 3 drops of a 0.05% solution may be instilled in each nostril at intervals of not less than 4 to 6 hours.

Preparations for use as stated for the foregoing drug are marketed under the following name: Tyzine Hydrochloride.

Pfizer Laboratories, Division of Chas. Pfizer & Company, Inc., cooperated by furnishing scientific data to aid in the evaluation of tetrahydrozoline hydrochloride.
—*J. Am. Med. Assoc.* *161*:239 (May 19, 1956)

Preparations

Solution, Nasal, Tetrahydrozoline (Tyzine) Hydrochloride 0.1%; 30 ml. dropper bottles and 500 ml. bottles.

Solution, Nasal, Pediatric Tetrahydrozoline (Tyzine) Hydrochloride 0.05%; 15 ml. dropper bottles calibrated at 1 and 2 drops.

THORAZINE* ...*dramatic in emergencies*

vomiting
alcoholism
severe pain
hiccups
acute excitement
status asthmaticus

	Package Size	Price to Hospital
Ampuls 1 cc. 25 mg.	Boxes of 6 Packages of 100 **Packages of 500†**	$3.12 box 44.00 pkg. **195.00 pkg.**
Ampuls 2 cc. 50 mg.	Boxes of 6 Packages of 100 **Packages of 500†**	4.38 box 62.00 pkg. **240.00 pkg.**
Suppositories 25 mg.	Boxes of 6	1.23 box
Suppositories 100 mg.	Boxes of 6	1.53 box
Syrup 10 mg./5 cc.	4 fl. oz. bottles	1.53 each
Tablets 10 mg.	Bottles of 50 Bottles of 500 **Bottles of 5000†**	2.13 each 20.24 each **170.00 each**
Tablets 25 mg.	Bottles of 50 Bottles of 500 **Bottles of 5000†**	3.03 each 28.79 each **243.00 each**
Tablets 50 mg.	Bottles of 50 Bottles of 500 **Bottles of 5000†**	3.63 each 34.20 each **270.00 each**
Tablets 100 mg.	Bottles of 50 Bottles of 500 **Bottles of 5000†**	4.83 each 46.32 each **366.00 each**
Tablets 200 mg.	Bottles of 500 **Bottles of 5000†**	64.85 each **510.00 each**

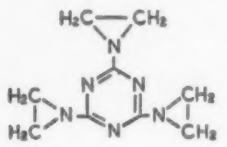
†Available only to *non-profit* (tax exempt) institutions for use within the institution.

Smith, Kline & French Laboratories, Philadelphia

*T.M. Reg. U.S. Pat. Off. for chlorpromazine, S.K.F.

Triethylene Melamine

TRIETHYLENE MELAMINE is 2,4,6-tris(aziridine)-s-triazine.—2,4,6-tris(ethylenimino)-s-triazine. — The structural formula of triethylene melamine may be represented as follows:



Actions and Uses

Triethylene melamine is an ethylenimine derivative with actions and uses similar to those of the nitrogen mustards. (See the monograph on mechlorethamine hydrochloride.) It is converted in the body to a highly reactive quaternary ethylenimonium compound. Unlike the mustards, however, the conversion of triethylene melamine takes place in an acid rather than an alkaline medium; thus the drug may be administered orally. The cytotoxic actions of triethylene melamine are idential to those of the nitrogen mustards, and both drugs are believed to act in the same fundamental manner. Triethylene melamine, however, does not possess the local vesicant action of the nitrogen mustards, its onset and duration of action are more prolonged, and it produces less anorexia, nausea, and vomiting.

In general, the therapeutic indications for triethylene melamine are similar to those for nitrogen mustard therapy. As such, the drug is usually most effective for the palliative treatment of certain generalized, but not terminal, cancers of the lymphatic and hematopoietic systems. X-ray therapy is ordinarily considered the initial treatment of choice for localized tumor involvement. As patients generally become refractory to the drug, its effectiveness usually diminishes with continued use.

The best results to date with triethylene melamine have been obtained in patients with widely disseminated Hodgkin's disease. The drug should be employed as an adjunct to and not a substitute for irradiation therapy. It is particularly useful when localized lesions are not evident or when lesions recur quickly and spread in spite of x-ray therapy. Remissions induced by triethylene melamine are characterized by regression of tumor masses and relief from anorexia, weakness, and pruritus. Although these are of varied duration, temporary improvement lasting about 2 to 14 weeks can be expected in a significant percentage of patients. Subsequent triethylene melamine therapy usually is less effective.

Triethylene melamine is effective in some patients with generalized malignant lymphoma (lymphosarcoma) and chronic lymphocytic (lymphatic, lymphoid) leukemia. The response to the drug in these patients is usually not as satisfactory as in patients with Hodgkin's disease. In addition, the bone marrow of such patients appears to be unusually susceptible to the drug, and severe depression of the hematopoietic system can result from small doses. Triethylene melamine therefore should be reserved for patients with conditions refractory to x-ray treatment or with neoplastic involvement too generalized to be amenable to conventional radiation therapy.

Although x-ray therapy, sodium radio-phosphate (P^{32}), and busulfan are considered more satisfactory for the treatment of chronic granulocytic (myelogenous, myeloid) leukemia, triethylene melamine may produce temporary remissions in certain cases. The drug should not be employed for the initial therapy of this disease but may be used when the response to the other therapeutic measures is poor. There is no evidence that triethylene melamine is effective in the treatment of acute leukemia.

There are isolated reports on the beneficial effects of triethylene melamine in mycosis fungoides, polycythemia vera, and carcinoma of the lung and ovary; however, sufficient experience with this agent has not been attained to justify its routine use in these conditions.

The clinical toxicity of triethylene melamine is identical to that of the nitrogen mustards, with the exception of a lower incidence of nausea and vomiting and the absence of local vesicant effects. The chief advantages of triethylene melamine are its oral effectiveness with less unpleasant side-effects and the feasibility of therapy on an ambulatory basis. The principal disadvantages are related to its slow onset of action and prolonged effect. Thus, though the drug initially is better tolerated than the nitrogen mustards, its cumulative toxicity is greater. In patients with severe constitutional symptoms, nitrogen mustard therapy would therefore appear to be preferable. Whenever triethylene melamine therapy is undertaken, the same precautions must be observed regarding depression of hematopoietic function as those described for mechlorethamine hydrochloride. It should be emphasized that any patient may be extremely sensitive to the effects of triethylene melamine and that extreme caution is indicated when bone marrow has been previously involved by disease or its function depressed by therapy.

Dosage

Triethylene melamine is given orally in doses that must be determined individually. The extent to which it is absorbed appears to vary considerably. Since it is inactivated by excess gastric acidity and contact with food, it should be given with at least 2 gm. of sodium bicarbonate an hour or more before breakfast.

In initiating therapy, the usual maximum safe dosage is 2.5 mg. given on each of two successive mornings. Some patients, especially those with lymphosarcoma and chronic lymphocytic leukemia, are extremely sensitive to the effects of the drug. In such patients, anorexia may develop 8 to 12 hours after the second dose. If the second dose does not produce anorexia, it is usually safe to administer a third dose of 2.5 mg. The effects of the initial three doses on appetite and white blood cell count must then be observed for 3 to 5 days before more of the drug is administered. After this initial regimen, subsequent maintenance therapy with triethylene melamine is governed by the patient's sensitivity as evidenced by appetite and white blood cell count. Maintenance requirements vary from as little as 0.5 to 1 mg. every 7 to 14 days for patients with maximum sensitivity to as much as 2.5 to 5 mg. every 2 to 5 days in patients with low sensitivity. Total white blood cell counts should be recorded at least three times a week during the initial period and before every dose. Therapy should be suspended whenever the white blood cell count falls rapidly or is below 4,000. Any dose that causes severe anorexia or vomiting should be considered excessive. Because of slow onset of action, the therapeutic effect may not become evident until 7 to 10 days after initiation of therapy. Maintenance therapy should be continued, with leukocyte counts before each dose, as long as subjective improvement continues without evidence of excessive bone marrow depression. The initiation of therapy on a careful basis and its maintenance for a much longer period is essential for the successful employment of triethylene melamine.

Preparations for use as stated for the foregoing drug are marketed under the following name: Triethylene Melamine.

Lederle Laboratories Division, American Cyanamid Company, furnished scientific data to aid in the evaluation of triethylene melamine.

—*J. Am, Med. Assoc.* *161*:152 (May 12, 1956)

Preparations

Tablets Triethylene Melamine 5 mg., scored.

Therapy in Amebiasis

Current Status

AMEBIASIS, a protozoan infection caused by Endamoeba histolytica, is endemic throughout the world, but occurs with greatest frequency in tropical and subtropical areas. Although the infection is most commonly found in the intestine, it also may involve extraintestinal sites. Intestinal infection may exist merely as an asymptomatic carrier state, or it may cause symptoms varying in severity from mild or vague abdominal discomfort to severe dysentery with ulceration of the lower colon and motile amebas (trophozoites) in the stools. Invasion of other tissues may go undetected except with the development of severe or localized lesions.

The diagnosis of amebiasis is based upon the demonstration of cysts or trophozoites in the stool or in scraping obtained by curettage. Success of the treatment is determined by the elimination of cysts and/or trophozoites from stools, healing of ulcers, and improvement of the patient subjectively. Because a large number of infections tend to remain asymptomatic, it is difficult to estimate the incidence of the disease. Two properly conducted, consecutive, negative stool examinations are usually sufficient to rule out all but the most obscure cases. Barium, bismuth subcarbonate, mineral oil, and sulfonamides interfere with the detection of amebas in the stool.

Drugs recognized for the treatment of acute or chronic intestinal amebiasis include emetine, arsenicals, iodoquinolines, and certain antimalarials and antibiotics. A mixture of emetine, bismuth, and iodine is favored in some countries for the oral treatment of subacute and chronic amebic colitis because it is less toxic than emetine alone; however, the mixture often produces severe nausea and vomiting that require simultaneous sedation and a special diet. The oral use of emetine is not desirable because there is no way to determine how much is absorbed. Ipecac is no longer employed in amebiasis. Sulfonamides or the antibiotics may be necessary to eliminate associated secondary bacterial infection that sometimes occurs in chronic intestinal amebiasis.

Emetine hydrochloride should be administered parenterally in all severe forms of amebiasis, but only to the extent necessary to control such severe manifestations as pain, fever, and diarrhea or extraintestinal complications such as hepatic abscess. It does not cure either symptomatic or asymptomatic intestinal amebiasis. Mild forms of the disease should be treated with drugs effective in eradicating the parasite. Emetine hydrochloride is administered by deep subcutaneous injection. The usual dose for adults is 60 mg. per day, usually for 4 to 6 days and never for more than 10 days. As soon as severe manifestations are controlled, emetine therapy should be replaced by orally effective drugs to eradicate infection. Emetine may cause gastrointestinal disturbances, neuromuscular weakness, dyspnea, and myocardial damage as shown by electrocardiographic changes. It is contraindicated in patients with organic heart disease and kidney disease and in the aged.

The amebacidal arsenicals are indicated in the acute and chronic intestinal form of the disease in the following oral dosages for adults: acetarsone, 0.25 gm. three times daily for one week; arsthinol, 0.25 gm. three times daily for 5 days; carbarsone, 0.25 gm. twice daily for 10 days; glycobiarsol, 0.5 gm. three times daily for one week; thiocarbarsone, 50 to 100 mg. three times daily for 10 days.

Administration of arsenicals involves the potential hazard of arsenic intoxication with resulting gastrointestinal symptoms and cutaneous disturbances. They are usually regarded as contraindicated in the presence of liver involvement or kidney damage.

The iodoquinolines also are useful in both acute and chronic intestinal amebiasis in the following oral dosages for adults: chiniofon, 0.75 to 1 gm. three times daily with meals for 7 to 14 days; diiodohydroxyquin, 0.65 gm. three times daily for 20 days; iodochlorhydroxyquin, 0.25 gm. three times daily for 10 days.

When iodine derivatives are used the possibility of iodism must not be overlooked; these derivatives are contraindicated in patients sensitive to iodine.

Chloroquine phosphate, an antimalarial, also acts as an amebacide and is effective in eradicating apparent and unapparent extraintestinal infection. It is not effective against intestinal infection. Amodiaquin hydrochloride, the antimalarial equivalent of chloroquine, has not been established for use in extraintestinal amebiasis. For this purpose chloroquine phosphate is administered orally in an average dosage for adults of 0.5 gm. twice daily for two days followed by a single dose of 0.5 gm. daily for 2 to 3 weeks. This dosage may also be given in conjunction with intestinal amebacides to eradicate extraintestinal involvement. Some authorities believe that chloroquine is routinely indicated because of the likelihood that intestinal infection is associated with early invasion of extraintestinal sites. The drug may produce side-effects such as headache, pruritus, and gastrointestinal, visual, and psychic disturbances. The psychic disturbances may interfere with the safety of operation of machines and vehicles.

Antibiotics useful for the treatment of amebiasis include bacitracin, carbomycin, chlortetracyline hydrochloride, oxytetracycline hydrochloride, and fumagillin. Although bacitracin may be somewhat less effective, it is the least toxic of the antibiotics proposed for this purpose. Carbomycin has not been established as an amebacide; the tetracyclines are not directly amebacidal but are fairly well established as potentially curative, apparently by eliminating intestinal bacteria upon which the amebic parasite is dependent. The usual oral dosage of these drugs for adults is as follows: bacitracin, 80,000 units daily for 10 to 14 days; carbomycin, 2 gm. daily in divided doses every 6 hours; chlortetracycline, 1 to 2 gm. daily for 10 days; fumagillin, 30 to 60 mg. daily in divided doses for 10 to 14 days; oxytetracycline, 2 gm. daily for 10 days.

Side-effects from therapy with broad-spectrum antibiotics include diarrhea, monilial colitis, and proctitis. Desquamation and sensory disturbances of the palms and soles have occurred rarely with fumagillin.

Relapses may occur after the use of any of the agents currently employed for controlling amebiasis, indicating that a universally effective drug is not yet available.

Repeated courses of therapy with the same or a different drug may be necessary in order to combat recurrence of symptoms and eliminate E. histolytica from the stool. Rest periods of 7 to 10 days or more in which no drug is given should intervene between alternating or repeated courses of therapy to avoid cumulative toxic effects. Close supervision and adjustments in dosage are essential to control side-effects during therapy.

Surgical drainage may be necessary in cases complicated by hepatic or lung abscesses and particularly in those instances involving an abscess of the brain. When such surgical intervention is indicated by failure of response to various chemotherapeutic agents, the operation should be preceded by treatment with amebacides and antibiotics to reduce the possibility of complications.

—*J. Am. Med. Assoc. 160*:1230 (Apr. 7, 1956)

Report to the Council

The Council has authorized publication of the following report.

H. D. KAUTZ, M.D., *Secretary*

Drug Therapy of Epileptic Seizures

Current Status

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and
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Considerable progress has been made in the past two decades in both diagnosis and treatment of epilepsy. The techniques of electroencephalography, pneumoencephalography, and angiography have made it possible to verify specific seizure types and to uncover pathological processes previously not diagnosed except at operation or autopsy. The development of more efficient drugs now makes it possible to control or greatly reduce the frequency of seizures in more than 75% of the patients and thus allow them to lead a normal life. Previously held notions as to intelligence and personality characteristics of patients with seizures have been discarded, and many of the restrictions, both social and economic, have been shown to be unjustifiable. Nevertheless, many erroneous impressions are prevalent among the laity and medical profession concerning "epileptics," and they are still not fully accepted by society. Though this report concerns itself with the technique of drug therapy, it is important that the physician apprise himself of the broader aspects of the problem.

The term epilepsy does not refer to a disease entity but rather to a symptom-complex. It is characterized by periodic, transient episodes of alteration in the state of consciousness, which may be associated with convulsive movements and/or disturbances in feeling or behavior. As implied in the definition, a wide variety of clinical manifestations come under the heading of epilepsy. There is also a long list of conditions and diseases of the nervous system and seemingly unrelated structures in which convulsive phenomena are prominent. Before beginning treatment, it is important to define properly the type of seizure and if possible to detect the underlying disease process. Since convulsive seizures may precede other symptoms of disorders of the nervous system by many years, constant reevaluations are necessary.

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Classifications of Seizures

It is customary to describe seizures in terms of the associated disease process as well as the type of seizure. When a structural defect or physiological disturbance of the brain can be demonstrated, the convulsive disorder is described as symptomatic or acquired; when such factors are not found, the disease is called idiopathic or, more justifiably, a seizure of unknown origin. The more thoroughly the history and condition of the patient are probed, the fewer are the cases that are classified as idiopathic.

The clinical manifestations that occur during a seizure are not dependent on the nature of the pathological process responsible for the attacks but are related to the site of origin of the abnormal discharge that initiates the seizure and to the rapidity and extent of the spread of this discharge The symptoms that occur during a seizure are so numerous and varied that it is impossible to set up a simple classification that will include all cases. It is customary, however, to divide them into four groups; grand mal, focal, psychomotor, and petit mal. Some investigators construct a classification based on the presumed site of origin of the abnormal discharge; however, the therapeutic effectiveness of available anticonvulsant drugs is so intimately correlated with seizure types that this division will be used here.

Grand Mal.—Grand mal seizures occur with or without aura and are characterized by sudden loss of consciousness followed by generalized tonic and clonic spasms of the musculature. Tongue biting as well as urinary and fecal incontinence may occur. Typical postseizure phenomena are headache, sleep, confusion, and exhaustion. The frequency and severity of these attacks are highly variable. Abortive forms consisting of the aura itself, a brief lapse of consciousness, or precipitous falling are frequently encountered. These minor episodes must be differentiated from petit mal attacks.

Focal Seizures.—Focal seizures have some clinical manifestation that indicates that their site of origin is in the cerebrum. The classical example of a focal attack is the so-called Jacksonian seizure, which is characterized by convulsive twitching of isolated muscle groups. If the convulsive movements remain limited, consciousness will be maintained; but with progression of convulsive movement from one part of the body to another, loss of consciousness may occur. Focal seizures are usually associated with a gross organic lesion of the cerebral cortex, which may or may not be demonstrable by clinical techniques now available.

Psychomotor Seizures.—Psychomotor attacks are characterized by automatic patterned movements, with clouding of consciousness and postictal amnesia for the episode. The movements may be as simple and brief as slapping the hands, or episodes of sequential behavior lasting 2 or 3 minutes may occur. Because these attacks are manifested by alterations in behavior, perception, and affect, they are frequently confused with hysterical and psychotic symptomatology.

Petit Mal.—A typical petit mal attack is characterized by a sudden brief lapse in consciousness with minor motor movements of the head, eyes, or extremities. The seizure lasts 5 to 30 seconds, after which the patient is immediately alert and able to continue his usual activity. Akinetic seizures, taking the form of sudden toneless episodes with falling, and myoclonic jerks, which are sudden involuntary muscular contractions of the trunk or limbs,

are usually included with petit mal because of the similarity of their electroencephalographic patterns; however, both of these may be phenomena of the grand mal attack as well. Their relative refractoriness to those drugs effective in pure petit mal makes it doubtful whether they should be included in this category. Petit mal is further characterized by its high incidence in childhood, the frequency of the seizures (many per day), and the rarity of their occurrence in association with gross brain lesions.

General Principles of Drug Treatment

The objective of all anticonvulsant therapy is to establish and maintain a reservoir of drug sufficient to control the seizures while producing a minimum of side-reaction. The ideal anticonvulsant, one that would affect all seizure types, have an established dosage, and produce no untoward effect, is as yet unavailable. Consequently, choice must be made from a group of drugs one or more of which is most effective for a particular seizure type or for a particular patient. If more than one seizure type exists, a combination of drugs is usually more effective than a single one. In fact, a combination of drugs will often be necessary even for patients with a single seizure type. The choice of drug must also be governed by its ease of administration and its safety in regard to nonfatal and reversible toxic phenomena.

After choice of the most effective drug or drugs for a particular patient has been made, it must be remembered that anticonvulsants have no fixed dosage. Their administration should be started at what is assumed to be a minimum dose and gradually increased until either the seizures are controlled or toxic reactions to the drug develop. If the latter occurs without seizure control, the administration of drug is not discontinued but doses are reduced to a nontoxic level and a second drug is given following the same principle of increasing dosage. This system of pyramiding drug administration allows for the establishment of a reservoir of two or more anticonvulsants, the combined action of which is more effective than any one drug by itself. As many as three or four drugs can be combined in this fashion without producing toxic reactions. Frequent shifting of drugs is undesirable. When new drugs are introduced, previous medication should not be discontinued until an optimum level has been established for the new medicament.

Diligence and patience are necessary to find by this method of trial and error the best possible combination of drugs and the optimum dosage schedule for each individual patient. The patient's confidence and cooperation are essential for the success of a program of this sort. He must be indoctrinated in the mechanism of the process and enlisted to play an active role in keeping accurate records of his seizures, taking prescribed doses, and reporting his reactions to the drug.

The antiepileptic drugs most commonly used are derivatives of the barbiturates, hydantoins, oxazolidines, bromides, and, to a lesser extent, the phenylacetylureas, succinimides, and carbonic anhydrase inhibitors.

The following is a list of currently employed drugs and combinations designated under nonproprietary terminology that are commercially available under various trade names:

Barbituric Acid Derivatives.—Phenobarbital, mephobarbital, metharbital, and primidone.

Hydantoin Derivatives.—Diphenylhydantoin sodium and methylphenylethylhydantoin (3-methyl-5,5-phenylethylhydantoin).

Oxazolidine Derivatives.—Trimethadione and paramethadione.

Phenylacetylurea Derivative.—Phenacemide.

Succinimide Derivative.—Phensuximide.

Carbonic Anhydrase Inhibitor.—Acetazolamide.

Combinations of Two or More Drugs.—Diphenylhydantoin sodium, phenobarbital, and methamphetamine hydrochloride; diphenylhydantoin and mephobarbital; diphenylhydantoin and phenobarbital; methylphenylethylhydantoin and phenobarbital.

Techniques of Drug Administration in Major Seizures (Grand Mal, Focal, Psychomotor)

Initial Drugs of Choice.—For all types of seizures, except petit mal, initial drugs of choice are diphenylhydantoin sodium and/or phenobarbital. These drugs have been shown to have a high therapeutic index with a minimum of untoward side-effects and are commonly regarded as standard anticonvulsant drugs. When toxic reactions to these drugs do occur, they are rarely serious and are reversible when administration of the drugs is discontinued or dosage adjusted. In patients with infrequent seizures (less than one a year), phenobarbital may prove effective by itself and, in such instances, usually is the drug of choice. In patients with more frequent attacks, diphenylhydantoin sodium usually is preferred as the initial drug, with phenobarbital added at such time as diphenylhydantoin sodium proves ineffective as the sole agent for seizure control. When both are incapable of producing the desired result, addition of other drugs, such as methylphenylethylhydantoin, primidone, or mephobarbital, is indicated.

Phenobarbital.—The initial dose of phenobarbital for adults is usually 0.1 gm. a day given as a single dose at bedtime. If necessary, the dose may be gradually increased to 0.3 to 0.4 gm. administered in divided doses. Rarely will any beneficial effects occur beyond this dosage without many undesirable side-effects. Children over 2 years of age usually require the same doses as adults, and they tolerate the drug equally as well. For children under 2 years of age the dose should be computed on the basis of body weight.

The toxic effects seen with phenobarbital are usually not serious and are reversible when the drug is withdrawn or reduced in dosage. Drowsiness and lethargy are common at the onset of treatment and at higher dosage levels. In most instances these symptoms spontaneously disappear with the continued use of the drug. If they do not, the use of amphetamine sulfate, 5 to 20 mg. daily, or other suitable amphetamine derivatives can be tried, as it may alleviate the drowsiness without altering the anticonvulsant potency of the drug. Allergic maculopapular skin eruptions, either generalized or localized, over the limbs occur infrequently. These eruptions may occur at any time in the course of treatment even as late as 10 years after institution of treatment with phenobarbital. In the higher dosage range, ataxia of gait, vertigo, blurring of vision, and drowsiness occur with great frequency.

The chief limiting factor with phenobarbital is its narrow dosage range, since therapeutic and toxic doses are very close. Consequently its use is restricted to patients with infrequent seizures in whom control can be achieved by a moderate dose of the drug. In addition, it is an excellent adjunct to treatment with other anticonvulsants such as diphenylhydantoin sodium, as it has been found to act in a synergistic fashion.

Diphenylhydantoin Sodium.—The initial dosage of diphenylhydantoin sodium is 0.1 gm. two or three times a day best given after meals. It is then increased by 0.1 gm. increments at weekly intervals until optimum effect is obtained. In order to avoid a complicated schedule of dosage, the total daily amount of drug may be given as one dose or divided in two, giving half after breakfast and half after the evening meal. Most adults will tolerate between 0.4 and 0.6 gm.; occasionally, patients may tolerate as much as 1 gm. So critical is the optimum level of tolerance that 50 mg. may be the difference between seizure control and toxicity. Careful adjustment of dosage by trial and error must be carried out in each individual patient. In children under 6 years of age the starting dose is 32 mg. three times daily; in those above 6 years, 0.1 gm. twice daily.

The toxic effects of diphenylhydantoin sodium may be divided into those that are minor and do not interfere with treatment and those that are so disturbing to the patient that administration of the drug must be discontinued. The latter are infrequent. Gastric distress and nausea may occur with the initial doses. This is minimized by taking the drug at mealtime or with sodium bicarbonate. Transient nervousness, sleeplessness, and a feeling of unsteadiness are occasionally encountered during the first few days of treatment but subside with continued use. Nystagmus develops in most patients taking diphenylhydantoin sodium; this in itself is not serious and does not constitute a true toxic reaction. When this is associated with diplopia and ataxia of gait and limbs, reduction of the dose is necessary. Usually, reducing the dose by 0.1 gm. will alleviate these symptoms if they are mild. If they are more intense, cutting the dose in half for 3 to 5 days will be necessary. If the latter is done, the dose can be slowly increased again to a level just below that at which toxic reactions previously occurred.

Hypertrophy of the gums is a toxic effect uniquely seen with diphenylhydantoin sodium. It is distressing because of its cosmetic effects and its effect on dentition. It is primarily seen in children and young adults and does not occur in edentulous areas of the gums. It varies from slight puffiness and sponginess of the gums to hyperplasia that may completely bury the teeth. It bears no relationship to dosage and is rarely seen in the first few months of treatment. Good dental hygiene, with vigorous massage of the gums, should be practiced by all patients taking diphenylhydantoin sodium, as this seems to retard the process. When excessive overgrowth occurs, surgical excision is indicated. Rarely will administration of the drug have to be discontinued because of this finding.

Hirsutism is occasionally encountered, especially in children. In adolescent and preadolescent girls, this is a disturbing symptom and may necessitate withdrawal of the drug; however, it is mild in most instances. Since it does not disappear with elimination of therapy, administration of the drug should not be discontinued unless this symptom is noted to be progressive.

Major allergic phenomena such as fever, polyarthropathy, and skin eruptions are rare, but they are causes for a change in anticonvulsant medication when they occur. The skin eruptions seen with diphenylhydantoin sodium are of two varieties. The first is an acute generalized morbilliform eruption with or without a temperature elevation, usually occurring about 2 weeks after treatment is begun. Discontinuing administration of the drug results in complete alleviation of this toxic manifestation. The second type of eruption is an exfoliative dermatitis, which may occur at any time in the course of treatment. Both of these skin eruptions subside when the drug is withdrawn. Though retrial beginning with smaller doses and increasing at smaller increments may be attempted, the chances for success are remote; it is best to employ one of the other anticonvulsants.

Additional Drugs.—More recently introduced anticonvulsants include some with serious irreversible side-reactions and others with less potential in controlling seizures. Their use usually is indicated after adequate trial of therapy with diphenylhydantoin sodium and/or phenobarbital has failed. Adequate trial implies the use of these two drugs alone and in combination with increasing doses until either seizure control or toxic reactions to the drug result. When toxic reactions of such nature as to require withdrawal of either of these drugs results, another drug may be added to the nontoxic dosage of the previously tolerated anticonvulsant, with its dosage gradually increased. Administration of a previously tolerated anticonvulsant should not be abruptly discontinued, except in the rare instances of an acute allergic reaction, until a full dosage level of the newer drug has been attained. In most instances, administration of the initial drugs will not need to be discontinued at all, as the patient may remain on a combination of three or four drugs.

Methylphenylethylhydantoin. — When methylphenylethylhydantoin is being used as the sole anticonvulsant for adults, a dosage of 0.4 to 1 gm. must be attained for seizure control. Therapy is begun with 0.1 gm. of the drug three times a day, and the dose is gradually increased by 0.1-gm. increments at weekly intervals. When administration of the drug is being added to an existing anticonvulsant regimen, 0.1 gm. a day is given initially, with 0.1 gm. being added at weekly intervals. In children under 6 years of age, half doses are used—50 mg. three times a day.

Drowsiness is a frequent side-effect with methylphenylethylhydantoin and often limits its use in full therapeutic doses. Allergic skin eruptions are similar to those seen with diphenylhydantoin sodium but occur more frequently and necessitate withdrawal of the drug. The most serious toxic effect seen with methylphenylethylhydantoin is on the blood. Agranulocytosis, pancytopenia, and aplastic anemia, sometimes fatal, may occur with methylphenylethylhydantoin therapy. Though the highest incidence of these blood dyscrasias is during the first few months of treatment, they may occur at any time in the course of therapy. For this reason all patients taking this drug should be examined frequently and have a complete blood cell count once a month throughout the period of treatment.

Mephobarbital.—Mephobarbital is mainly used as a substitute for phenobarbital. In equivalent dosage, its sedative effect is less than that of phenobarbital, but it must be used in higher dosages to match the anticonvulsant action of phenobarbital. It is therefore used in double the phenobarbital dosage; its side-effects are similar.

Metharbital.—Metharbital has been recommended for seizures caused by organic brain disease. Its similarity to phenobarbital and mephobarbital makes this assumption extremely doubtful. Its main use would be as a substitute for phenobarbital since, in equivalent doses, there is less sedative action; however, in full therapeutic doses this difference disappears. In adults the initial dose is 0.1 gm. three times a day, increased to 0.6 gm. if necessary. In children, one-half the adult dose is used.

Primidone.—The starting dose of primidone is 0.25 gm., increasing by 0.25-gm. increments in the daily dose at weekly intervals. In order to achieve therapeutic effectiveness, 0.75 to 1.5 gm. daily is necessary. In children one-half the adult dose is used. Drowsiness, nausea, vomiting, dizziness, and ataxia are toxic manifestations. These symptoms subside with regulation of the dosage in most patients, but on occasion withdrawal is necessary. In most instances primidone cannot be given in large enough amounts to achieve seizure control without undesirable side-effects. Consequently, it rarely can be used by itself but must be combined with other drugs, usually diphenylhydantoin sodium.

Bromides.—Though bromides are now used rarely, they are indicated occasionally for patients in whom all other drugs have failed. The starting dose, either as the sodium or potassium salt, is 1 gm. twice daily in adults, increasing by 1-gm. increments at weekly intervals. Bromide levels at which anticonvulsant effects develop are highly individualized as are levels of toxicity. If a daily dose of 6 gm. is not effective, it is unlikely that further increase in dosage would be effective or tolerated. In children, the starting dose is 0.3 gm. three times daily, with gradual increases by 0.3-gm. increments until the effective dose is reached. Throughout treatment adequate intake of chlorides should be maintained to prevent undue replacement by bromides. It is not routine practice to test serum bromide levels in patients except when it is felt that the therapeutic range of the drug is being exceeded. The serum bromide level should be kept below 125 mg. per 100 cc., since most cases of bromism develop when the level is above 150 mg. per 100 cc. The toxic effects seen with bromides are mental dullness, psychoses, and skin eruptions.

Phenacemide.—Phenacemide is of extremely limited use because of its serious toxic effect. It may be tried as a last resort in patients with severe and frequent psychomotor seizures in whom seizure control cannot be obtained with other drugs. In adults the starting dose is 0.5 gm. three times a day. Its therapeutic dosage range is 2 to 3 gm. a day. In children half doses are used—0.25 gm. three times a day. Phenacemide may produce serious toxic reactions, including personality disturbances with psychotic manifestations, toxic hepatitis, and blood dyscrasias. Some of these reactions may be irreversible and fatal; hence, utmost care must be exercised during use of the drug. Patients taking phenacemide should be examined frequently and have periodic blood counts and liver function tests. Use of the drug is contraindicated in patients with a history of previous psychoses or liver disease. Other toxic phenomena seen with phenacemide include nausea, vomiting, skin eruption, and drowsiness. In some instances these may be alleviated by adjustment of dosage but may also be severe enough to require withdrawal of the drug.

Acetazolamide.—The use of carbonic anhydrase inhibitors as anticonvulsant agents is relatively recent. In addition to inhibiting brain carbonic anhydrase, acetazolamide has acidifying and dehydrating properties. To which of these properties its anticonvulsant action can be attributed is unknown. Reports concerning the use of acetazolamide are few and vary as to the seizure types affected. In adults, the starting dose is 0.25 gm. three times a day with gradual increase by 0.25-gm. increments up to 1 gm. Large doses may produce drowsiness and paresthesia in the face and limbs. These symptoms disappear with reduction of dosage. Isolated instances of agranulocytosis, thrombocytopenia, and renal lesions, some fatal, have been reported during the short time this drug has been in use.

Combined Drugs.—Combinations of one of the hydantoins and barbiturates (with or without a stimulant to inhibit sedation) have been made available for ease of administration of these drugs. Their use is exceedingly limited under the program of drug administration as outlined previously, because the dosage of one cannot be adjusted without affecting the other. They can be used in the rare instance where a patient's condition has been stabilized on a combination of drugs, and the individual dosages fortuitously correspond to the fixed ratio of dosage in the combination. These dosages of a hydantoin and barbiturate (also combined with added methamphetamine) as provided by three such combinations, are detailed as follows: (1) diphenylhydantoin sodium, 60 mg., and mephobarbital, 90 mg.; (2) diphenylhydantoin sodium, 100 mg., phenobarbital, 30 mg., and methamphetamine hydrochloride, 0.25 mg.; and (3) methylphenylethylhydantoin, 100 mg., and phenobarbital, 20 mg.

Petit Mal

For success in the treatment of petit mal it is important to distinguish this seizure from other minor seizure types. Rigid adherence to the characteristics previously described and electroencephalographic confirmation are necessary. Drugs used for the treatment of petit mal are not effective against other types of seizure phenomena. When petit mal coexists with other seizure types, adequate therapeutic doses of phenobarbital and diphenylhydantoin sodium are indicated as well.

Trimethadione.—The starting dosage of trimethadione is 0.3 gm. three times a day for adolescents and adults. Gradual increases in dosage are carried out until therapeutic effect is obtained, usually between 1.5 and 2.7 gm. daily. In children under 2 years of age, 0.15 gm. two or three times a day is the initial dosage, with increments of 0.15 gm.

The limiting minor side-reactions seen with trimethadione are photophobia, drowsiness, and nausea. The photophobia may disappear with continued therapy or be controlled by the use of dark glasses. Drowsiness and nausea are self-limited and spontaneously remit with continued therapy. Toxic dermatitis occurs with some frequency and is of the morbilliform or urticarial variety. The drug should be withdrawn immediately when rashes appear, but it may be retried, beginning with smaller doses and increasing by smaller increments at a slower rate.

The serious toxic reactions seen with trimethadione are aplastic anemia, agranulocytosis, and nephroses. A number of fatalities due to these complications have occurred; therefore, it is necessary that all patients taking this drug be examined frequently and that monthly blood cell counts be performed. Transitory decreases in the percentage of polymorphonuclear leukocytes without an absolute decrease in total leukocytes may occur during treatment with trimethadione. This does not necessitate withdrawal of the drug but requires added caution and more frequent blood cell counts. The appearance of signs of kidney dysfunction requires immediate withdrawal of the drug.

Paramethadione.—Paramethadione is a close congener of trimethadione. Its dosage schedule and toxicity are similar. Toxic manifestations are less frequent, and

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intolerance to trimethadione does not necessarily mean intolerance to paramethadione. Its use is indicated in those patients with petit mal seizures who are refractory to treatment or develop toxic reaction to trimethadione. Occasionally the combination of both drugs gives better results than either one alone. The same precautions that were detailed for trimethadione apply to the use of paramethadione.

Phensuximide.—Phensuximide is indicated for the treatment of petit mal when trimethadione and paramethadione, administered either alone or in combination, have proved ineffective. The starting dose is 0.5 gm. three times a day with gradual increments of 0.5 gm. Therapeutic effect is usually obtained in the range of 2 to 3 gm. a day. The limiting side-effects are nausea, vomiting, dizziness, drowsiness, and dream-like states. These disappear with adjustment of dosage or withdrawal of the drug. Transient microscopic hematuria has been reported during it administration, but all investigations are not in agreement as to its occurrence or significance. It would seem wise to do urinalyses and blood cell counts at stated intervals for patients receiving the drug for long periods until more is known about its toxic manifestations.

Status Epilepticus

The occurrence of seizures with such frequency that recovery from the effects of one attack does not occur before the next attack supervenes is termed status epilepticus. Though this may occur with any of the seizure types, it is seen most frequently with grand mal. Its occurrence constitutes a medical emergency and is best handled in a hospital. Maintenance of fluid balance, prevention of hyperthermia, and good nursing care are essential throughout the period of coma.

Effective drugs for the treatment of status epilepticus are phenobarbital sodium, amobarbital sodium, and paraldehyde. They should be given in full therapeutic dosages by the intravenous route at the time of the first injection. Divided doses and serial use of many sedatives should be avoided as they may produce respiratory depression without seizure control.

The dosage for adults of phenobarbital sodium or amobarbital sodium is 0.4 to 0.8 gm. dissolved in distilled water. Either one of these drugs can be used, though phenobarbital sodium usually is preferred. If they are ineffective, 3 to 6 cc. of paraldehyde should be given intravenously. In children, one-half the adult dose is used.

Causes For Failure Of Treatment

Long-term experience with the use of anticonvulsant drugs has shown that seizures can be completely controlled in 50% of the patients and greatly reduced in number in another 35%. To achieve these results, thorough evaluation of the neurological status, critical classification of the type of seizure, and establishment of adequate drug therapy are essential. Not infrequently one or the other of these criteria has been found to be lacking in patients classified as having uncontrolled seizures. Some of the common pitfalls that must be guarded against are therefore outlined.

Improper Classification of Seizure Type.—Since the physician rarely witnesses an actual seizure, he is dependent on the reporting of the patient and his relatives for details. Patients tend to speak in general terms rather than to give an actual description of the details of the seizure. To classify properly the type of attack, it is important to get as accurate a description as possible from the patient as well as from the family or others who have witnessed a seizure. The most frequent error encountered is the confusion of minor grand mal and psychomotor seizures with petit mal attacks. Rigid adherence to the description previously outlined for petit mal as well as electroencephalographic confirmation will avoid this error.

Failure to Recognize a Progressive Neurological Disease.—A complete neurological examination as well as routine and special laboratory procedures should be carried out prior to treatment. Periodic reexaminations are also a necessity, since seizures may be the initial symptom and precede other symptoms of tumor or degenerative disease of the central nervous system by many years. The onset of other symptoms of these diseases may be mistaken for toxic reactions to drugs in patients under treatment for seizures.

Failure to Use Proper Drugs.—As previously indicated, some drugs are effective against only one type of seizure. This is particularly true of trimethadione, which is effective against petit mal but entirely ineffective against major seizures. Though hydantoin and barbiturate derivatives are effective against major attacks, they usually have little or no beneficial effect on petit mal seizures. The incorrect choice of a drug will give poor results.

Failure to Administer Proper Dosage.—Improper dosage far outnumbers all other factors as a cause for failure in the control of convulsive seizures. The use of anticonvulsant drugs in epilepsy is analogous to the use of insulin in diabetes: the dosage must be determined for each patient. Frequency of seizures and the appearance of untoward side-reactions to drugs are the indices by which dosages of anticonvulsants are established for the individual patient.

Frequent Shifting of Drugs.—The frequent shifting from one drug to another is extremely undesirable in the treatment of epilepsy. With each change in medication a new reservoir of drug has to be built up. The chief impetus for shifting drugs comes from the constant introduction of new medicaments. The patient looks to each new anticonvulsant as a possible cure and is desirous of trying something new. The physician, on the other hand, is usually dependent on the results in a relatively small series of cases in which clinical trial has been carried out. In most instances this only demonstrates the effectiveness of the drug as an anticonvulsant but rarely indicates its efficacy in comparison with longer-established drugs or allows for conclusive determination of its potential toxic phenomena. Consequently, administration of new anticonvulsant agents usually should be reserved for patients resistant to therapy with adequate dosages of well-established drugs.

Premature Withdrawal of Drugs.—Not infrequently, anticonvulsant medication is discontinued by either the physician or patient after a relatively short seizure-free period. Such practice usually results in a recurrence of attacks. Though the time interval for treatment is not absolute, most neurologists agree that treatment should continue for at least 2 to 3 years after the last seizure. When medication is to be discontinued it must be done gradually over a period of a year or so depending on the original dosage level.

Poor Indoctrination of Patients.—The process of trial and error to determine the proper drug and its optimum

dosage cannot be expected to produce immediate results. Patients and their families must understand that beneficial effects in some cases may occur only after a protracted interval of time to allow for a sufficient buildup of anticonvulsant drugs. They should be warned against early discouragement and discontinuing use of drugs before they have had an adequate trial. Adults should be warned against the taking of alcoholic beverages. Periodic bouts or sustained intake of alcohol will counteract the beneficial effects of the drugs.

Lack of Recognition of Social and Economic Needs of Patients.—The patient must be made to feel that with control of his seizures the opportunity for assuming his rightful place in society exists. The physician must be in a position to dispel misconceptions concerning marriage and counsel the patient on education and job training. Failure to recognize these needs will often cause a patient to be too discouraged to continue his treatment.

—*J. Am. Med. Assoc. 161*:333 (May 26) 1956

Report of the Council

The Council has authorized publication of the following reports.

H. D. KAUTZ, M.D., *Secretary*

Therapy in Leukemia

Current Status

The leukemias are considered generally to be malignant neoplasms of the hemopoietic organs. The disease, or group of diseases, is characterized by an extensive and abnormal proliferation of the white blood cells and their precursors, accompanied by cellular infiltrations into the bone marrow, spleen, lymph nodes, and other body tissues. Anemia and purpura regularly develop in the early stage of the disease due to hypoplasia of the normal marrow elements; as the disease progresses, the marrow is replaced by leukemic tissue.

Two general types of leukemia, acute and chronic, may be distinguished by the rate of progression of the disease and by the degree of differentiation of the leukemic cells. Further differentiation into granulocytic (myelogenous, myeloid), lymphocytic (lymphatic, lymphoid), or monocytic leukemias may be possible, although the leukemic cells may be undifferentiated to such a degree that no agreement as to cell type can be reached.

Acute leukemia is commonest in children in the first five years of life but can occur at all ages. Chronic leukemia occurs in men somewhat more frequently than in women and is encountered most commonly in the fifth and sixth decades of life.

Specific Therapy

Specific antileukemic therapy currently in use falls into three categories: irradiation, hormones, and chemotherapeutic agents. For the selection of the appropriate method, factors such as the age of the patient, the cytological type of leukemia, its acuteness or chronicity, the degree of organ infiltration, and the state of the marrow productivity should be considered.

Therapeutic response is classified as a complete or partial hematological remission or a clinical remission only. A complete hematological remission can be claimed only when the peripheral blood findings for hemoglobin, erythrocytes, leukocytes, and platelets return to normal levels and the marrow findings revert to normal. A clinical remission invariably occurs if there is a complete hematological remission. In the incomplete hematological remissions, improvement in the blood and marrow occurs without obliteration of the leukemic cells, and clinical improvement also is usually present, although less prolonged. In the remission classified as clinical only, subjective and objective improvement occurs, with gain in weight, loss of fever, improvement in appetite, and a sense of well-being. Regression of the hepatomegaly, splenomegaly, and lymphadenopathy also occurs, but without a satisfactory improvement in the marrow findings.

No curative method has been developed for any type of leukemia; however, therapy should be attempted in all cases because remissions obtained by judicious selection and use of available chemotherapeutic agents have been well demonstrated. In acute leukemias of childhood, the duration of life is prolonged by therapy. Although adults respond less well, the subjective benefits also may justify therapy of adults with leukemias.

Acute Leukemias.—The acute leukemias run a rapidly fatal course and differ also from the chronic forms in their cytology. The undifferentiated stem-cell, myeloblastic, and monocytic leukemias run an acute course, whereas the small lymphocytic and granulocytic cell types are found in the subacute and chronic forms. Although a specific antileukemic agent has not been developed against a particular cell type, significant differences in the therapeutic effects of various agents for the several types of cells have been demonstrated clinically.

The stem-cell and lymphoblastic leukemias respond to antifolic compounds, the purine antagonists, and adrenocortical hormones and steroids; the granulocytic and monocytic leukemias respond poorly to the hormones and only somewhat better to the purine antagonists. The acute leukemias of childhood respond better to all agents than those of the adult.

The folic acid antagonists are the most effective antimetabolites employed. This group includes aminopterin (4-aminopteroylglutamic acid) and A-methopterin (4-amino-N^{10}-methylpteroylglutamic acid). These drugs have induced hematological and clinical remissions in over 50% of cases of acute lymphocytic leukemia in children, depending on the skill of the physician in manipulating these drugs. Less satisfactory results have been obtained in adults, although some respond satisfactorily with periods of remission. Aminopterin is available as the sodium salt. The usual oral dose is 0.25 to 0.5 mg. daily for children and double that for adults; the intramuscular dosage is the same. A-methopterin is administered as the sodium salt and requires 5 to 10 times this dosage. A significant increase in survival time has been obtained in patients who respond to therapy.

Toxic effects develop frequently with these drugs. The first symptoms of toxicity are seen in the mouth, where shallow ulcers appear on the buccal mucosa and extend to the gingiva. Severe toxic signs include skin eruptions, alopecia, vomiting, mucous diarrhea, melena, leukopenia and severe bone marrow depression. These toxic effects can be alleviated by withdrawal of the drug. Intramuscular injections of the calcium salt of Leucovorin (folinic acid, citrovorum factor) also may be tried for extreme overdosage.

The purine antagonist mercaptopurine (6-mercaptopurine) has been shown also to be of value in the treatment of acute lymphocytic leukemias, particularly in children and, to a lesser degree, in acute granulocytic leukemia. The usual daily dosage is 50 to 100 mg. orally for children or about 2.5 mg. per kilogram of body

REPRESENTATIVE CLINICAL STUDIES OF **Ecolid***

Number of Patients	Initial Oral Dosage	Responses	Duration of Action	References
59 (Total Series)	75 to 300 mg. daily	Compared with other ganglionic blockers, small doses of Ecolid were employed and greater hypotensive effect was obtained. Rapid absorption and long duration of hypotensive action.	Postural hypotension lasted 13.4 hours in 5 "test" patients receiving doses of 150 mg.	1
20	50 to 200 mg. daily	Blood pressure in 20 well controlled; reductions lasted twice as long as those induced by pentolinium. Each of 10 patients with previous experience with hexamethonium preferred Ecolid. Less difficulty with constipation; appetite improved; greater energy.	**	2
18	50 to 100 mg. daily	Hypertension in 18 well controlled. Supine blood pressure reduced without tachycardia. Constipation occurred infrequently.	Supine blood pressure lowered for 12 hours or more with single oral doses of 50 to 100 mg.	3,4
44	50 mg. daily	35 responded well; 14 of these became normotensive. All patients received reserpine as base therapy.	**	5
12	25 to 200 mg. daily	Blood pressure of all 12 satisfactorily controlled. Systolic blood pressure lowered average of 76 mm. Diastolic blood pressure lowered average of 42 mm.	**	6

*To date, a total of 63 investigators have reported on the use of Ecolid in more than 500 patients. They were practically unanimous in the opinion that Ecolid was highly effective. Nearly all commented on the prolonged duration of action—about 8 to 12 hours—which permitted a twice daily dosage schedule in most cases.

**Information not available.

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weight. Toxic manifestations are bone marrow aplasia and ulceration of intestinal epithelium. This drug has a specific leukopenic effect, which occurs after 5 to 10 days of administration and before a marrow hypoplasia occurs. This leukopenic effect can be anticipated and controlled by intermittent use of the drug but also may be a limiting factor in the usefulness of the drug in a given patient. It is less toxic to the mucosa of the gastrointestinal tract than are the folic acid antagonists.

It is of interest that mercaptopurine is able to produce remissions in a certain percentage of children whose disease is resistant to the folic acid antagonists or to the steroids. Similarly, in patients whose disease is resistant to mercaptopurine, the steroids and A-methopterin also may produce further remissions. In adults mercaptopurine appears to be the compound of choice. The antagonist of guanine, 8-azaguanine, has been undergoing experimental evaluation, but results are inconclusive at present.

The hormones of benefit in acute leukemia are corticotropin and cortisone. Initial remissions have been reported in 70 to 75% of the cases of acute undifferentiated leukemia in children, but the response in myeloblastic and monoblastic types is less favorable. The duration of remission is short, lasting 3 weeks to 3 months. Although subsequent remissions may follow another course of hormone therapy, it is generally considered advantageous to combine therapy with an orally administered corticosteroid and one of the chemotherapeutic agents when relapse occurs. The average dose of corticotropin is 50 to 200 mg. per day intramuscularly or 20 to 50 mg. daily by constant intravenous drip. Cortisone may be administered orally or intramuscularly in doses of 25 to 100 mg. every 6 hours. Electrolyte imbalance, hypertension, mental changes, and supervening infection are possible complications of hormonal therapy. Resistance to these compounds appears rapidly after one or two courses of therapy.

Sequential use of agents, particularly in acute leukemia, rather than combination therapy, has been followed empirically for years. Combination therapy, including two or more drugs that work by different mechanisms, might seem to be a more complete therapy, but somewhat better results and longer survival times have been obtained by using one agent until resistance to it develops and then shifting to another antimetabolite. Corticotropin and cortisone are employed when resistance has developed to the antimetabolites or when emergencies occasioned by hemorrhagic manifestations occur.

Chronic Granulocytic Leukemia.—Irradiation, either by x-ray or radioactive phosphorus, is the most effective therapy developed for the chronic granulocytic type of leukemia, but this treatment can be employed only in areas with adequate facilities and personnel. X-ray may be administered either as a total body spray or as intensive direct irradiation of the spleen. Radioactive phosphorus may be administered orally or intravenously in solution as sodium radio-phosphate (P^{32}). The solution is commonly prepared to contain 1 mc. (millicurie) per milliliter. Single doses of 2 to 7 mc. have been used. Radioactive phosphorus has the advantage over x-ray of not causing radiation sickness and has been shown to be approximately as effective as x-ray. Radioactive gold has been under investigation as a therapeutic agent in chronic granulocytic leukemia, but is not yet generally recognized as useful for this purpose.

Of the chemotherapeutic agents used in chronic granulocytic leukemia, the nitrogen mustards and derivatives have been used most widely. Mechlorethamine hydrochloride (nitrogen mustard, HN_2) is best given by injection into a rapid saline intravenous infusion to minimize the danger of thrombosis. Total dosage may be given at one time or divided into daily doses of 0.1 mg. per kilogram of body weight for 4 days. Nausea, vomiting, and severe hematological depression frequently result from nitrogen mustard therapy.

Chemically related to mechlorethamine hydrochloride is triethylene melamine (2,4,6-tris[ethylenimino]-5-triazine). The average dose of the latter is 2.5 to 5 mg. orally two times a week or less, as needed. Since it can be given orally and causes less nausea and vomiting, triethylene melamine is generally considered easier to handle than its related nitrogen mustard; however, its cumulative effects may cause severe toxic reactions. In addition, patients exhibit a wide range of sensitivity to this agent.

A new agent of this group, which is reported to have a specific depressant action on granulocytes, is busulfan (1,4 dimethane sulfonoxybutane). This drug is given orally in doses up to 6 mg. daily for 4 to 6 weeks, followed by smaller maintenance doses. The only toxic effect that has been observed with larger doses is thrombocytopenia and general marrow depression. Excellent remissions marked by a feeling of well-being, decrease in spleen and liver size, rise and maintenance of hemoglobin level, and decrease in hemorrhagic manifestations have been obtained.

The antimetabolite mercaptopurine has been beneficial in the early stages of some cases that were resistant to other modes of therapy. The dosage is the same as in the acute leukemias. Evaluation of its use in this type of leukemia is incomplete at present.

Urethan (ethyl carbamate) also has been beneficial in the treatment of chronic granulocytic leukemia, but nausea and vomiting are frequent toxic manifestations. Good subjective improvement with a fall in white blood cell count has been obtained with an oral dosage of 3 gm. per day. Maintenance doses are somewhat lower, averaging 0.5 to 1.5 gm. daily.

No agent now used to treat chronic granulocytic leukemia has been proved to lengthen the actual survival time, but good hematological and clinical remissions have been obtained, and the patient's active and useful life is definitely increased. Many of the drugs used can give rise to severe hematopoietic depression unless frequent hematological examinations are done and dosage regulated accordingly.

Chronic Lymphocytic Leukemia.—Occasionally, chronic lymphocytic leukemia may run a slow and protracted course and no therapy may be necessary for years. In most patients, however, treatment is indicated. Few of the agents that are beneficial in chronic granulocytic leukemia are of equal use in the lymphocytic type. Local irradiation of affected lymph nodes often brings rapid relief of symptoms. Total body irradiation and use of radioactive phosphorus given orally also have been shown to be of benefit, but generally the hematological response is not as good as that obtained by radiation in chronic granulocytic leukemia.

Triethylene melamine is quite often effective as a chemotherapeutic agent for chronic lymphocytic leukemia, its use frequently resulting in good remissions. It should be employed with great caution, however, and the dose should be approximately one-half that used in

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chronic granulocytic leukemia. Administration of mechlorethamine hydrochloride also has given beneficial results, but again in fewer instances than in chronic granulocytic leukemia. The usefulness of this nitrogen mustard is further limited by the tendency of the drug, in many instances, to produce a greater destructive effect on the normal bone elements than on the leukemic lymphocytes.

The hormones may be of value in patients with associated thrombocytopenia or hemolytic anemia, probably by combating secondary hypersplenism. They are quite useless in chronic lymphocytic leukemia, in which thrombocytopenia is caused by central bone marrow failure.

Nonspecific Therapy

In addition to the specific agents described, several other measures are useful in the treatment of leukemia. Transfusions often are necessary to combat anemia, and antibiotics are needed whenever serious infection threatens the patient. Since maintenance of morale is also important, leukemia patients should be allowed to live as normally as their condition will permit.

Summary

No curative agent has been developed for leukemia, and the disease is invariably fatal; however, satisfactory remissions and prolongation of life can be achieved in a good percentage of cases, particularly in acute lymphocytic leukemia. No case of leukemia should be considered untreatable without adequate therapeutic trial.

The most satisfactory therapeutic results have been obtained in acute lymphocytic leukemias, and to a lesser degree in acute granulocytic leukemia, with the antimetabolites and the hormones corticotropin and cortisone. Mercaptopurine is occasionally beneficial in acute monocytic leukemia. X-ray and radioactive phosphorus give the best therapeutic results in chronic granulocytic leukemia, but several drugs such as busulfan and triethylene melamine occasionally induce hematological and clinical remissions.

Chronic lymphocytic leukemia is the most protracted and benign type of leukemia, but on occasion is less responsive to therapy. Remissions have been obtained with irradiation and a few of the agents beneficial in chronic granulocytic leukemia.

—*J. Am. Med. Assoc.* *160*:1228 (Apr. 7) 1956

Report of the Council

The Council has authorized publication of the following report.

H. D. KAUTZ, M.D., *Secretary*

Therapy in Nausea and Vomiting of Pregnancy
Current Status

At different times in recent years the Council has been requested by pharmaceutical firms to evaluate the use of various drugs for relief of nausea and vomiting of pregnancy. Comparison of the submitted supporting data and the opinions of a panel of Council consultants in obstetrics have disclosed some very interesting differences of opinion concerning the value of drugs other than sedatives in the treatment of this condition.

In one report on an anti-motion-sickness agent it was stated that "nausea and vomiting occurred in almost 80% of all pregnancies," whereas one of the consultants stated, "There have been so few cases of nausea and vomiting of pregnancy that opportunity for study . . . has been limited." Similar contrasting attitudes have been expressed concerning the necessity for active drug therapy. One investigator found it advisable to administer an anti-motion-sickness drug to 182 patients for relief of vomiting of pregnancy; however, a consultant stated, "In the 16 years before 1947 less than one in a thousand obstetrical patients required hospital treatment for this condition, and even fewer since then."

Thus it has become apparent that the wide discrepancy in opinions lies in different interpretations of what is meant by nausea and vomiting of pregnancy. Accordingly, the Council felt it necessary to reconsider the status of drugs used for this purpose on the basis of more precise definition of the terminology. On the recommendation of the American Academy of Obstetrics, a panel of four consultants with experience in this field was polled concerning the terminology as well as the necessity and efficacy of drug therapy.

Definitions

It was generally agreed by members of the panel that, although the term "nausea and vomiting of pregnancy" is applicable to both mild and severe forms, its use should be restricted to the condition, commonly observed during the first 14 to 16 weeks of pregnancy, that is characterized by some disturbance in appetite and reactions to food in a fairly large percentage of women. These reactions may vary from morning nausea to occasional emesis but are not accompanied by any signs of disturbed nutritional status. The percentage of women so affected, if detailed inquiry is made of all patients, was estimated to be 25 to 30% or slightly more, but in most instances the symptoms are so mild that the patient overlooks them. It was also agreed that in most of the more severe cases there were some elements of underlying emotional disturbance.

The panel felt that the term hyperemesis gravidarum, or pernicious vomiting of pregnancy, should be applied to the condition occurring in the few patients who exhibit intractable vomiting and signs of disturbed nutritional status, such as alteration of electrolyte balance, 5% or more weight loss, ketosis, and acetonuria, with ultimate neurological disturbances, liver damage, retinal hemorrhage, and renal damage. One member of the panel felt that ketosis and acetonuria should not be regarded as critical evidence of hyperemesis. This serious pathological condition apparently occurs only rarely in pregnant women who have proper early prenatal care and protection from serious emotional disturbances. In the experience of the consultants, most patients with hyperemesis gravidarum were under mental stress suggested by or related to the pregnancy.

Etiology

In attempting to evaluate the need and value of drugs, the lack of definite knowledge concerning the cause of the emesis of pregnancy is a limiting factor; however, there is agreement on at least two points of etiological responsibility — pregnancy and psychological factors.

Pregnancy apparently predisposes many women to gastrointestinal disturbance. Since these symptoms and signs seldom persist after the trophoblast is fully formed (16 weeks), it has been assumed that an unusual hormonal stimulus exists during the early phases of pregnancy. Treatment with estrogen and progesterone, however, has not been successful in alleviating the situation.

1. King, A. G.: The Treatment of Pregnancy Nausea with a Pill, *Obst. & Gynec.* *6*:332-338 (Sept.) 1955.

Another assumption has been that the conceptus is producing some toxic substance during the first trimester, but no adequate support for this theory has been demonstrated.

There is little question that psychological factors play a major role in both mild and severe nausea and vomiting of pregnancy. This has often been offered as the explanation for the beneficial results reported after psychotherapy, painful procedures, administration of placebos, and the use of various unrelated drugs.[1] Psychiatrists state that strong dependent needs for relief or escape from the ordinary stresses of daily existence are usually present in the patient. When the additional burden of pregnancy occurs, it produces a violent and often subconscious rejection of this increased demand on the patient's already overburdened life situation. The resultant psychomotor pressures are manifested through the visceromotor nervous system.

Diagnosis As A Guide To Treatment

In all instances of nausea and vomiting associated with pregnancy a complete examination should be performed to rule out any possible cause other than the pregnancy. If the diagnosis seems to be the more or less physiological nausea and vomiting of pregnancy as previously described, in the opinion of the panel general instructions will ordinarily suffice, such as adequate rest, lightening of household burdens, avoidance of nervous excitement, and ingestion of frequent small meals high in carbohydrate content. The patient should be repeatedly reassured that her condition is not serious and is self-limited; she should also be encouraged by the physician to discuss any problem and fear associated with her pregnancy. If sedation is required, 60-100 mg. of phenobarbital or a similar barbiturate may be given twice daily. Because of the emotional factors involved, it is not surprising to find that psychotherapeutic techniques are frequently successful and that placebos are often as effective as test drugs in blind studies. Since mild forms of nausea and vomiting may flare into the intractable form suddenly and without warning, patients should be kept under close observation until the symptoms subside (seldom later than the 16th week of pregnancy).

Hyperemesis gravidarum, on the other hand, requires immediate active therapy to overcome the effects of disturbed nutrition by means of parenterally given alimentation, readjustment of electrolyte balance, and vitamin replacement. These measures plus hospitalization, quiet surroundings, sedation, and reassurance may be sufficient to break the cycle of vomiting.

Drug Therapy

One of the members of the panel concluded that valid methods for the clinical investigation of proposed drugs for treatment should include blind or double-blind studies, because the symptoms are self-limited and spontaneously of great variability in intensity, and also because the psychic component involved in both morning sickness and hyperemesis gravidarum is so great. When such methods of investigation were employed, most of the drugs tested had about the same level of effectiveness as a placebo.[2]

In reviewing the drugs that are currently employed in the alleviation of the symptoms of nausea and vomiting associated with pregnancy, the following categories may be found: (1) antihistaminics and the related anti-motion-sickness drugs, (2) anticholinergics, (3) vitamins, and (4) depressants.

The antihistaminic and anti-motion-sickness drugs in blind studies appear to be no more effective in simple nausea and vomiting of pregnancy than placebos.[2] It is doubtful whether they are of value in the treatment of hyperemesis gravidarum. Any effect obtained with their use can be attributed to a sedative action rather than to any specific inhibition of nausea or vomiting. The Council was informed of a study in progress by the blind test technique on one of the anticholinergic drugs that may be helpful in determining the possible usefulness of agents that inhibit gastrointestinal motility. Most vitamins appear to be of value only as replacements for deficiencies induced by hyperemesis gravidarum and are no more effective than placebos in simple nausea and vomiting of pregnancy[2a]; however, since pernicious vomiting is frequently characterized by a specific deficiency of pyridoxine (vitamin B_6), administration of this vitamin may be of value, in such cases, in the treatment of hyperemesis gravidarum.

The depressant chlorpromazine has shown considerable promise in the treatment of hyperemesis gravidarum.[3] Although a blind study has not been performed, chlorpromazine has been reported to cause a complete or almost complete cessation of symptoms in hyperemesis gravidarum in one to five days.[3c] Such patients should be carefully followed for evidence of blood or liver damage. Since chlorpromazine may induce serious side-effects, it probably should not be employed in physiological nausea and vomiting of the first trimester and should be reserved for trial in pernicious vomiting, preferably before hepatic damage has occurred.

Summary

Nausea and vomiting of pregnancy may be characterized as either physiological or pernicious. As a guide to management, it is important to distinguish between these two types and nausea due to causes other than pregnancy. The common physiological form usually responds to simple dietary measures, mild sedation, and psychotherapy; the rare pernicious type requires sedation as well as active hospital treatment to restore electrolyte balance and replace caloric and vitamin losses. Various drugs, including most vitamins, antihistaminics, and anti-motion-sickness drugs, have not been demonstrated to exert a more specific effect than placebos or sedatives upon either form of nausea and vomiting associated with pregnancy. Double-blind studies with a placebo and a sedative should be employed in the further clinical investigation of drugs proposed for this purpose. In some cases, vitamin B_6 (pyridoxine) may be of value as an adjunct in the treatment of pernicious vomiting of pregnancy. Meanwhile, chlorpromazine is considered to be a sufficiently active antiemetic to warrant a trial in the pernicious form of vomiting of pregnancy, preferably before damage to the liver has occurred.

2. (*a*) Dill, L. V.: Vomiting Associated with Pregnancy, M. Ann. District of Columbia *18*:178-184 (April) 1949. (*b*) Cartwright, E. W.: Dramamine in Nausea and Vomiting of Pregnancy, West. *J. Surg.* *59*:216-234 (May) 1951.

3. (*a*) Kent, B., and others: Clinical Observations on the Use of Chlorpromazine (SKF-2601A) as an Antiemetic Agent, M. Rec. & Ann. *48*:758-761 (Jan.) 1954. (*b*) Moyer, J. H., and others: Clinical Studies of an Anti-Emetic Agent, Chlorpromazine, Am. J. M. Sc. *228*:174-189 (Aug.) 1954. (*c*) Benarson, H. B., and others: The Use of Chlorpromazine in the Obstetric Patient: A Preliminary Report, *Am. J. Obst. & Gynec.* *69*:776-779 (April) 1955.

—*J. Am. Med. Assoc.* *160*:208 (Jan. 21, 1956)

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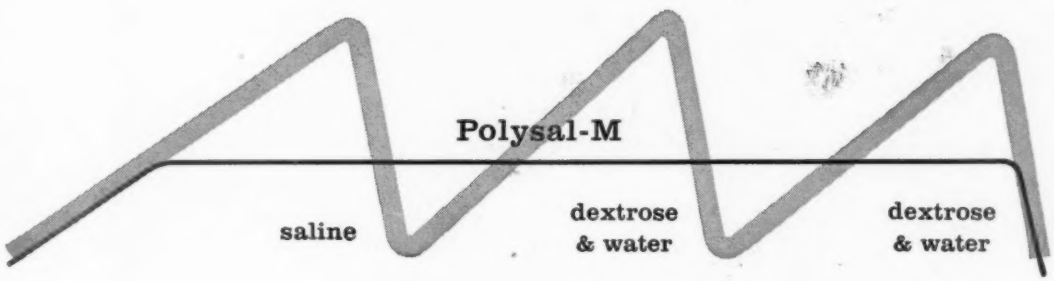

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*Talbot, N. B., Crawford, J. D., and Butler, A. M., "Homeostatic Limits to Safe Parenteral Therapy". New Engl. J. Med., 248, 1100 (1953)

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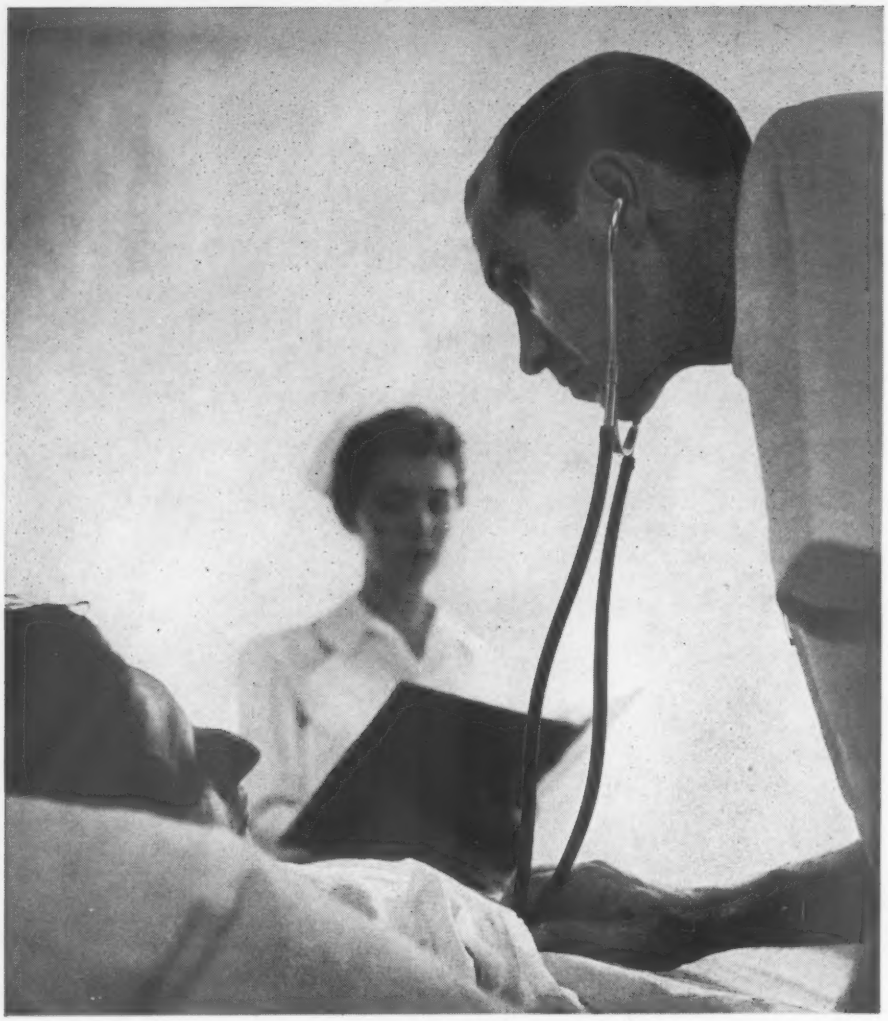

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Pharmacy Accreditation

DEAR SIRS: I am in receipt of the "Standards for Hospital Accreditation" issued by the Joint Commission on Accreditation of Hospitals, January 28, 1956. I note with interest that pharmacy has now been declared an essential service of the hospital and, for this, hospital pharmacists owe a debt of gratitude, for I am sure the SOCIETY was instrumental in its acceptance.

I note also in Administration 1. C-3. (a) "drug room under competent supervision"; in this connection I hope this part will be eliminated in the near future for how can a "drug room" be under competent supervision unless there is a registered pharmacist in charge?

Let's face the fact that this is an age of specialization and it applies to medications as well, and a hospital which has no registered pharmacist is limited in its ability to furnish the physician the medication desired for his patient and he has to be content with the supply of second choice medications many times. You may argue the retail druggist can supply these medications for the hospital, but I can say he is also limited in his stock of drugs which a hospital may call for; for you know as well as I do that many drugs now on the market are for hospital use only . . .

JOSEPH A. BARRY, *Chief Pharmacist*
The Memorial Hospital
Worcester, Massachusetts

Formulary Service

DEAR SIRS: I thought you might be interested in our initial work on a hospital formulary. At a staff meeting several months ago, I had a display of 131 different vitamin B complex capsules and tablets that we had in stock. We also presented a list of them to each physician present. Then the chairman of our Pharmacy and Therapeutics Committee explained to the staff just what we were trying to do. They saw the point very readily and responded unanimously in favor of trying the Formulary System. This was even better than I had hoped and prayed for. We started with these vitamin preparations and worked them down to a very few. So far I am very happy with the results.

I would like to ask if anything more has been done about making drug information (the type needed in a formulary) available through the ASHP . . .

SISTER MARY JOHN O.S.F., *Pharmacist*
St. Francis Hospital
Peoria, Illinois

EDITORS NOTE: The American Hospital Formulary—A Service Published under the Direction of the Committee on Pharmacy and Pharmaceuticals of the ASHP is now being prepared by Dr. William Heller, Chief Pharmacist of the University of Arkansas Hospital, Little Rock. It is expected to be ready for distribution by the Spring of 1957.

From India

DEAR SIRS: Thank you very much for the floor plans and equipment lists, the Minimum Standard, and other reprints. They have been a great help to me and to others who are planning hospital pharmacies. I am very grateful to you.

Since coming to India in 1947, I have taken an active part in the Indian Pharmaceutical Association and I have noted with pleasure that many Indians who have gone to the States to study pharmacy have later returned with a strong desire to raise the standards of the profession in their own country.

In 1950 when the first registration board was set up I was registered but after two years it was revoked on the grounds that I am an American, the reason given that many states in the U. S. refused to register Indians even though they have degrees from recognized American Colleges of Pharmacy.

Because most of our patients are very poor, I cannot afford the dues required to become a member of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. However, if there are any extra copies of the journals, I will be grateful for them, both for myself and for my students who become very conscientious and enthusiastic but have limited opportunities for keeping pace with current pharmacy.

Thank you again for your help with the new pharmacy. We hope to move into the new hospital some time this year. I will send you some pictures as soon as possible.

SISTER M. JANE FRANCES, S.C.M.M.
Holy Family Hospital
Patua City, Bihar, India

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EDITORIAL

Ten Years of Hospital Pharmacy Institutes

by Don E. Francke

The education of an individual is only well begun when he receives his professional degree. The SOCIETY early recognized this truth and took the initiative to establish short-term programs of instruction to provide practitioners with knowledge of new developments in their field of specialization. These postgraduate, or in-service training programs in hospital pharmacy are called institutes.

This year marks the tenth anniversary of the first institute on hospital pharmacy, which was held at the University Hospital, University of Michigan, in July, 1946. It is significant that in initiating in-service training for its members, the SOCIETY anticipated by several years one of the important recommendations of the Pharmaceutical Survey. In the *General Report of the Pharmaceutical Survey,* published in 1950, it was recommended that "colleges and schools of pharmacy recognize and assume responsibility for providing organized programs of in-service professional instruction of the practicing pharmacists within the area normally served by the institution . . . " It is a tribute to a group of practicing pharmacists that they early recognized this need and took steps to fulfill it, rather than waiting for others to do it for them.

While the initiative for the institutes was taken by the SOCIETY, other organizations play leading roles in conducting them. Thus, the American Hospital Association, the Catholic Hospital Association, and the American Pharmaceutical Association are most active in institute affairs. Without detracting from the important role other associations have played, special tribute is due the American Hospital Association whose Dr. Hugo Hullerman, then Secretary of the Council on Professional Practice, instantly saw and appreciated the great significance of institutes for practicing hospital pharmacists.

Institutes have played a major role in the rapid emergence of hospital pharmacy during the past decade. To date, almost 2,500 hospital pharmacists have attended the five-day institutes of which two or more are sponsored annually on a national basis by the cooperating organizations. In addition, stimulation provided by national institutes has resulted in the holding of numerous local and regional institutes or seminars on hospital pharmacy. In most instances, these have been sponored by one of the affiliated chapters of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. However, special mention must be made of the work of the College of Pharmacy of the University of Texas which since 1949 has conducted Seminars on Hospital Pharmacy in cooperation with the Texas Society of Hospital Pharmacists. More recently a series of one-day institutes on hospital pharmacy has been inaugurated by a pharmaceutical company in cooperation with affiliated chapters of the SOCIETY and, whenever feasible, with the cooperation of a college of pharmacy.

All of these refresher programs are a strong influence in the advancement of hospital pharmacy. They raise the standards of pharmacy practice in hospitals by bringing new ideas and procedures to the members of the SOCIETY, and by giving them an opportunity to evaluate their own methods and to contrast them with methods others are using.

But perhaps the most significant contribution of the institutes on hospital pharmacy is their effect upon the hospital pharmacist as an individual. Participation in institutes creates within the individual a selfawakening and a keen desire to reevaluate and to improve the pharmacy service of his own hospital. This, in essence, is the rewarding result. Ten years of institute programs have exerted a profound effect upon hospital pharmacy practice. Continuation of these programs will result in further advances as hospital pharmacy resolutely moves forward.


Rx

the pharmacist and the safe use of poisonous substances

by BERNARD E. CONLEY

I AM VERY PLEASED TO DISCUSS with you the safe use of poisonous substances. This is a problem whose dimensions are much larger than the public and many health workers realize.

Well over one quarter (¼) of a million chemical products are now available for use on the farm, in industry, and around the home. These products have been developed to make life simpler but they may complicate it unless they are used with intelligence and care. We must greatly improve safety awareness, especially in the home, if we are to reduce the persistently large number of injuries from chemicals which annually occur.

The popular notion exists that a poison is something, usually a solid or a liquid, which is lethal on swallowing. Actually, poisoning may also result from inhalation of toxic fumes and vapors or by absorption of poisonous material through the skin.

This narrow concept of poisoning undoubtedly contributes to the general disregard of the toxic properties of products such as cleaning solutions and certain types of laundry marking inks which commonly produce harm on inhalation or skin absorption. As you can see from Figure 1, death and disability occur not only from the ingestion of poisons, but are also produced by the inhalation of noxious gases and dusts and by caustic and corrosive chemicals.

Poisoning Commoner Than Many Diseases

The loss of life and the incapacitation resulting from harmful exposures to poisonous substances are greater than most diseases. Nearly 12,000 accidental deaths and suicides from poison occurred in the United States in 1950. The number of persons who received a disabling injury of 1 or more days duration cannot be precisely determined. On the basis of home accident reports, compensation statistics on occupational diseases, and other reliable surveys, conservative estimates place the number in excess of 1,000,000 annually.

The relationship of fatal to non-fatal injury by poisonous substances is analogous to the exposed and hidden parts of an iceberg. It is estimated that from 100 to 250 non-fatal injuries occur for every fatality, depending on the nature of the situation—accident or suicide, occupational, or home injury. In short, there is a lot more to the poisoning problem than shows above the surface. This is particularly true as it pertains to the cost of these injuries.

Cost In Lives And Property

While I've been talking to you, six (6) persons have probably been injured and one person may have died from poisonous substances. The cost to the nation every 10 minutes amounts to approximately $20,000. Wage losses and medical expenses for home and occupational accidents have been estimated at one quarter (¼) billion dollars for 1950. Welfare agencies estimate the cost of hospitalization and surgical treatment of a child with stricture of the esophagus from the ingestion of a corrosive such as lye, to amount to $8,000. The average compensation cost for silicosis, a lung disease caused by silicates, is $14,442 in New York State. Of even greater cost to the productive resources of the country is the loss of life. If you consider the cost of poisonings in terms of the life-expectancy of the individual and the working years lost as a result of his death, the cost becomes astronomical. Thus the death of children or young adults is disastrous not only to the victim's family but also to his community because of the economic loss of his working years to society.

Do these figures frighten you? I hope they do, because seldom are we compelled to think of the poison problem in the all-inclusive sense, that is, in terms of poison deaths from accidents, suicides, homicides, drug addiction or medical misadventure. Usually attention is drawn to accidental

BERNARD E. CONLEY is Secretary of the Committee on Toxicology of the American Medical Association.

Presented before third annual session of Pharmacy's Public Health Forum sponsored by Alumni Association, Brooklyn College of Pharmacy, Long Island University, Brooklyn, New York, February 28, 1956.

deaths from solid or liquid poisons. Occasionally, accidental deaths from poisonous gases, such as carbon monoxide, are cited as elements of the "poisoning" problem. Rarely are homicides and suicides from poison, or deaths from alcoholism, drug addiction, lung-dust diseases (pneumoconiosis) or therapeutic misadventure (over-doses of drugs) mentioned in connection with statistics on poisoning although they clearly fall within accepted definitions of poison.

The lack of emphasis on the total problem of poisons is due to two basic factors: (1) changes in methods of recording mortality statistics, and (2) concentration on special aspects of the problem, such as pediatric poisoning, or poisoning by household chemicals.

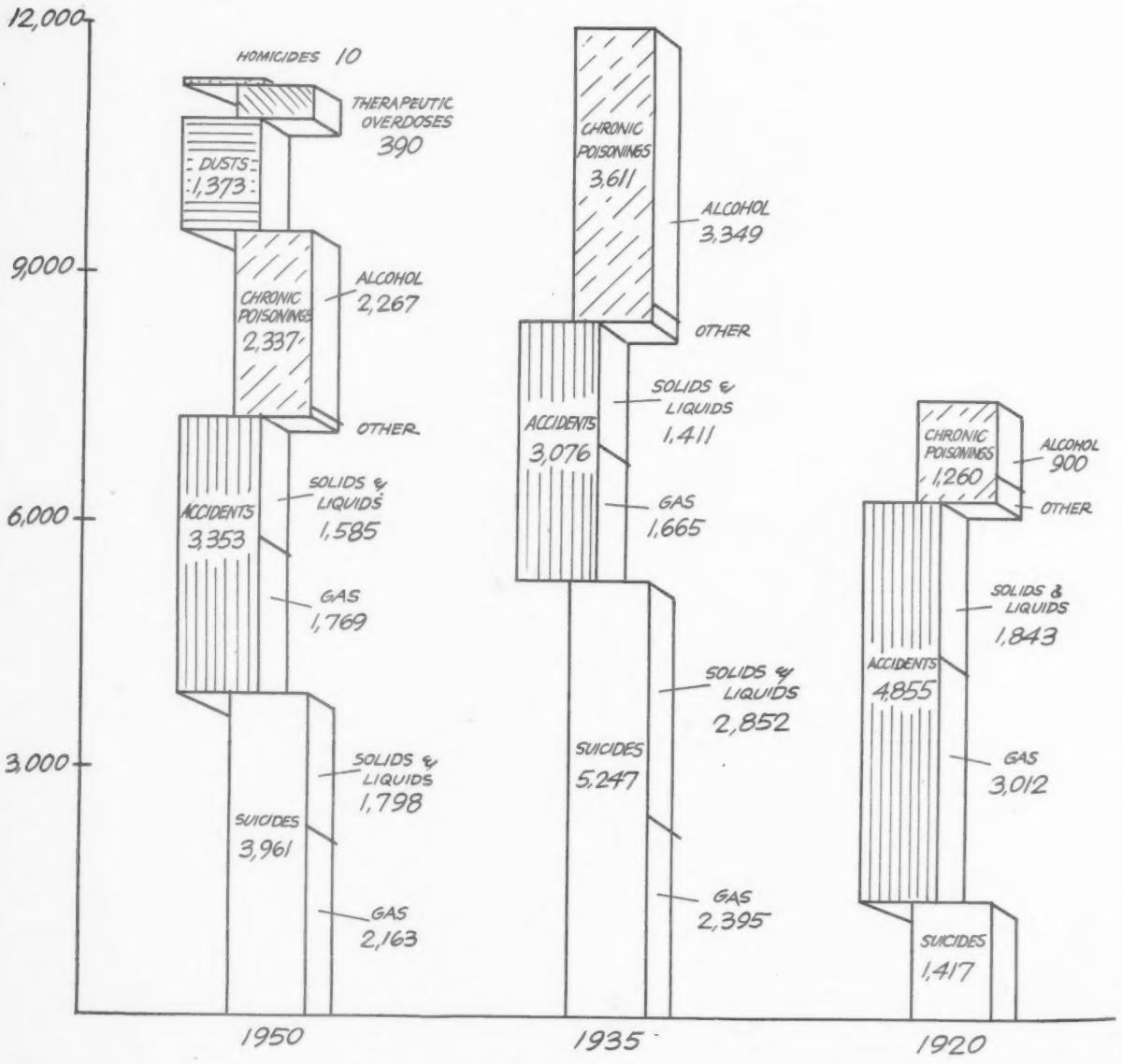


Fig. 1. Deaths Due to Poisons in the United States

The influence that such changes exert in the statistical classification of causes of death is manifest by the following examples: Before the 6th revision (1950) of mortality statistics, alcoholism was considered under chronic poisoning. Now it is classified separately. No listing of homicides from poisons, therapeutic overdoses, or pneumoconiosis was made prior to 1950. As yet, no separate listings are given to deaths due to chemical burns, external injuries by corrosives, or deaths by inflammable or explosive chemicals. These are still included under catch-all classifications, such as burns, scalds and injuries from conflagrations. Analysis of mortality statistics of the New York City Department of Health suggests that 20 percent of the accidental burn deaths are due to injuries by chemical agents. These injuries were not included in Figure 1

Before turning to individual cases of poisonings, I would like to compare poisonings with other leading causes of death. While poisoning fatalities constitute slightly less than 1 percent of the nearly 1.5 million deaths that occurred in 1950, they represent a significant (10 percent) part of those that could be prevented. The vast majority of deaths every year are due to diseases of advancing age, such as heart disease, cancer, cerebral hemorrhage, and arteriosclerosis for which we have no cures.

On the other hand, we've had a tremendous decrease in the fatality rate from infectious diseases such as diphtheria, whooping cough, pneumonia and smallpox because of specific immunization procedures, the sulfas and the antibiotics. Although there have been no significant recent changes in the over-all frequency of fatal injuries from chemicals, their relative importance as a cause of preventable disease has increased tremendously.

Comparison with other causes of preventable disease is also revealing. For example, the automobile is probably the most lethal agent in the hands of the American public. It kills three (3) times as many persons as chemicals and permanently or partially disables an approximately equal number. While the number of motor vehicle accidents increases each year, the number of lives lost on the basis of miles driven has decreased over 40 percent since 1935. Compare this improvement with the static position of poison fatalities for the same period (Figure 1).

It is for these and other reasons that no agitation has developed for study of means for combating the poisoning problem. Unfortunately, we have little organized research and no organized campaign for funds to study poisoning, such as are annually undertaken for less lethal, but nonetheless worthy medical causes.

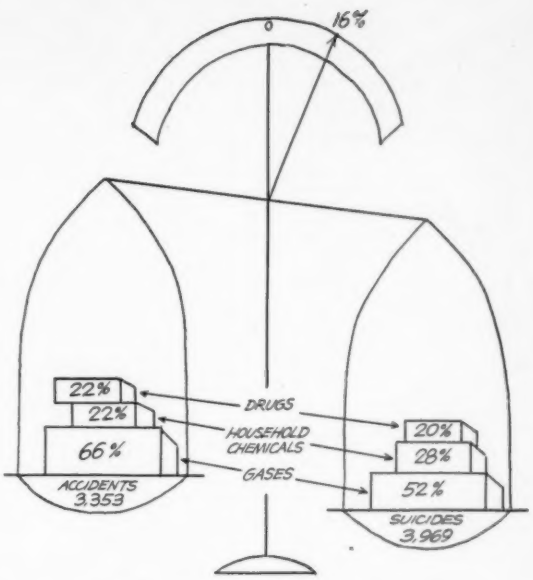


Fig. 2 Accidental vs. Suicidal Poisoning

Drugs — A Common Cause Of Poisoning

At this point, I would like to call attention to the special contribution drugs make to the poisoning problem. Although medicinals constitute an insignificant fraction (1/10 percent - 3/10 percent) of the total annual production of synthetic organic chemicals, they produced from 20-25 percent of the fatalities from accidental poisoning and suicide by poisoning—as you can note from Figure 2. In view of this, it is hard to escape the conclusion that wide-spread casualness about the toxic properties and the ready availability of drugs contributes to this disproportionately high incidence of chemical deaths.

The decided increase in accidental poisoning in England during the last 8 years has been associated with this cause (Figure 3). Since the introduction of the National Health Service program in 1948, which made drugs more widely available to the public than ever before, the number of cases of accidental deaths from medicinal agents has tripled. In Australia, where a generally comparable health insurance program is in operation, similar types of poisoning have sharply increased during the past 10 years.

In spite of the increase in accidental poisoning from packaged chemicals in Great Britian, such injuries in the United States still occur from two (2) to four (4) times as frequently in most age groups in the United States (Figure 3). England and Wales have only one sixth (1/6) of the fatal poisonings yet they have more than one quarter

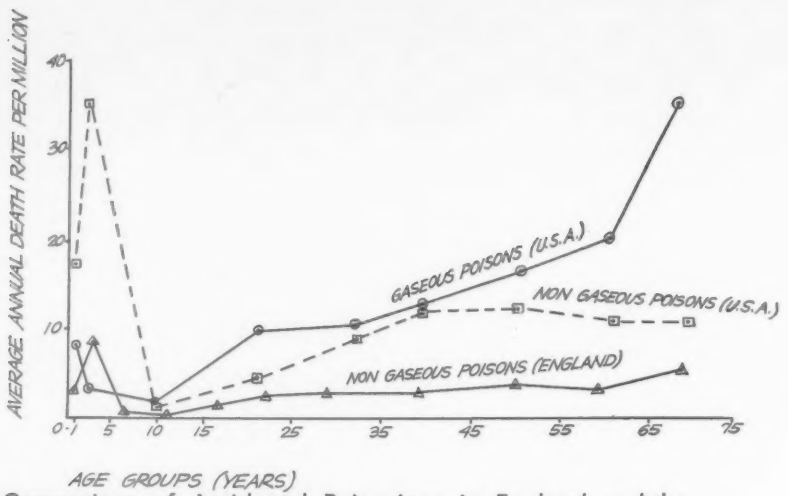


Fig. 3 Comparison of Accidental Poisonings in England and the United States for a Ten-Year Period, 1940-1949

(¼) of the population of the United States. The cause for this, I leave to your own imagination.

With respect to the distribution and rate of death among various elements in our population, you will note that the preschool age child is more susceptible to accidentally ingested poisons. The rate per million population is greater than the combined mortality from infectious diseases of children such as diphtheria, measles, polio and whooping cough. The mortality rate exceeds that for all infectious diseases for the whole population except for influenza, syphilis and tuberculosis. By contrast, the greatest danger from accidentally inhaled poisons is among the older elements of our population.

Pharmacist's Role In Poisoning Prevention

Pharmacists have an opportunity and, indeed, a responsibility to participate in poisoning prevention; especially as it involves drugs and related chemicals.

On an average of 200 persons daily make purchases in each of the nation's 51,000 drugstores. Many, if not most, of these purchasers are interested in health information—if it relates to their personal circumstances. Since accidental and intentional misuse of drugs and household chemicals is not an infrequent occurrence, pharmacists should feel compelled to caution purchasers about poisoning hazards.

The pharmacist's contribution to the poisoning problem, therefore, must be through education—education of parents and children whom they encounter daily. Health information about hazards of poisons can be stressed by a bulletin board strategically placed outside the prescription department—by counter posters, package inserts and verbal warnings when prescriptions and proprietary medicines are dispensed. To be fully effective these warnings should be directed at drugs and other packaged chemicals most likely to cause harm because of intrinsic toxicity or ready availability.

Pharmacists should discuss with their medical colleagues local health problems involving drugs and other potential poisons. For example, if the pharmacy serves an area which has temporary housing for veterans, it is likely that kerosene is used as a fuel oil. Warnings about the special hazards of kerosene to toddlers should be constantly stressed. On the other hand, if the pharmacy serves an older section of the city—where defective gas devices might be employed—cautions about the dangers of gas poisoning from leaky taps and worn flexible tubing could be stressed, particularly during the winter months.

In all areas, and at all times of the year, the dangers to children of common household drugs—such as headache (aspirin) anemia (iron), or hay fever (anti-histaminic) pills should be emphasized. At the same time, adults can be cautioned about abuse of barbiturates and excessive use of laxatives, analgesics, and other proprietary medicaments.

Conclusion

Poisoning, whether accidental or intentional, occupational or home injury, is an important cause of death and disability. Unfortunately, poisonous substances present a subtle, and not always, comprehensible type of hazard to many users of chemical products.

We must enlighten those who do not know, and perhaps frighten those who are careless, about consequences of misusing hazardous substances.

Pharmacists, because of the high frequency of their contacts with the public, have manifold opportunities for safety education. Taking up this challenge will reflect credit, not only to the individual, but to his profession.

reporting adverse reactions to drugs

by IRVIN KERLAN

IT IS A SPECIAL OPPORTUNITY to be invited by the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS to discuss the Food and Drug Administration's program on the reporting of reactions associated with the use of drugs. As is immediately apparent, the role of the hospital pharmacist is essential in the development and continuation of such a program.

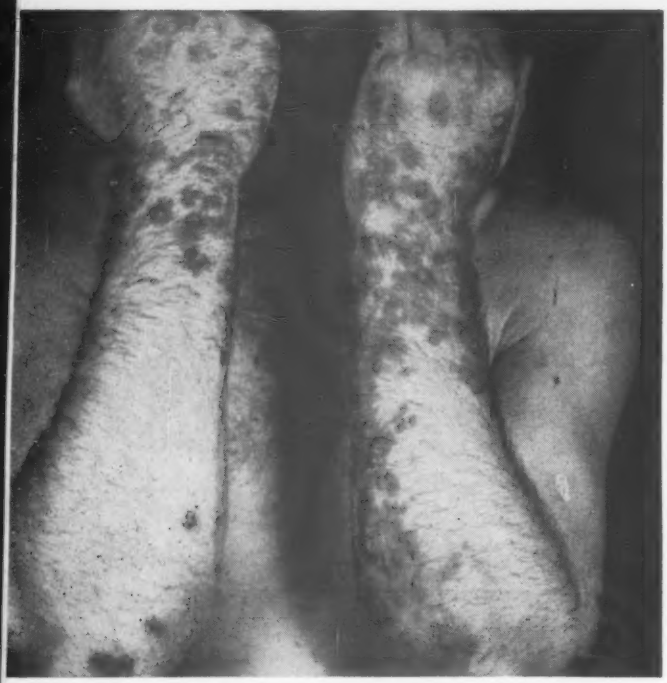
During the past two decades unparalleled advances have been made in the development of highly effective yet complex and potent drugs and medical devices. As is well known, these effective therapeutic agents frequently have potentialities for harm in direct ratio to their physiological effects. Unless their uses are surrounded with appropriate safeguards, serious and even fatal reactions may result. It is also known that these agents must be used widely for a period of time after laboratory and clinical investigation in order to ascertain their full range of effects. Accordingly, experience with new drugs must be followed closely to learn whether any serious untoward effects accompany their use so that the necessary protective measures may be provided in the interest of the patient, the physician, the hospital, the pharmacist, and the drug manufacturer. Several unfortunate experiences with new drugs in the past few years have pointed to the need for close and continuing observation.

Adequate Reporting Facilities Needed

The principal legal responsibility for seeing that the appropriate safeguards are provided in drug labeling rests with the Food and Drug Administration under the terms of the Federal Food, Drug, and Cosmetic Act. This statute seeks to maintain the identity, potency, quality, purity, and proper labeling and packaging of all drugs shipped in interstate commerce. The Food and Drug Administration needs adequate facilities for keeping abreast of the results of the use of drugs on a wide scale under all conditions. At present, once a new drug is released for distribution, the manufacturer having complied with the terms of the

IRVIN KERLAN, M.D., is Associate Medical Director and Chief, Research and Reference Branch, Division of Medicine, Food and Drug Administration, Department of Health, Education, and Welfare.

Presented at the Annual Meeting of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, Detroit, Michigan, April 9, 1956.



new-drug provisions of the law, FDA can follow its progress only through its own limited professional and inspectional staffs, supplemented by published literature, and infrequent voluntary reports from physicians, institutions, and pharmaceutical manufacturers. Though these sources are invaluable, the shortcomings of relying solely on such a system are readily evident. The delay that frequently occurs between the time a serious drug reaction occurs and the appearance of a published account limits in a great measure its value so far as alerting the professions promptly to help prevent additional incidents. Too, this "chance" system of reporting precludes the application of statistical principles in evaluating the significance of type and incidence of reaction in relation to the beneficial effects and the frequency with which the drug has been used without mishap.

Many of you in the past few years have been visited by physicians and inspectors of the Food and Drug Administration who came to obtain information with regard to specific drug problems. Your cooperation in these investigations has been helpful, and the application of the information you have made available has been of major value in the fields of medical practice and public health. As we look ahead to technological developments under way we are aware that perplexing problems affecting the public welfare may arise which will involve medical science, industry, and regulatory bodies.

Follow-up Required

It is not possible to determine with finality a new drug's safety at the time the new-drug application is permitted to become effective. The knowledge gained from wide use on thousands or millions of people under customary conditions of use is essential. Experience has demonstrated that clinical results do not always parallel precisely the knowledge gained from the original testing of a new drug under carefully controlled conditions. With wider use there may be a shift in the incidence or pattern of side effects or nature of toxicity from that associated initially with the drug's use. Unanticipated reactions may become manifest. Similarly, this shift in frequency and nature of reactions associated with use of a drug may be in the direction of greater safety. This points up clearly then that each drug continues to require close observation of use in order to determine how it must be controlled to avoid risk of injury.

The law provides that a new-drug application may be revoked if subsequent experience shows the drug can no longer be considered safe. This responsibility is shared also by the manufacturer

Dr. Irvin Kerlan

and the medical profession. When a serious situation arises, cooperative measures are planned which may result in adding a caution or warning to the labeling, recalling the drug from the market to bring it into compliance, or on occasion permanently withdrawing the drug.

Cooperative Action

In view of the multiplicity of problems which arise, the development of facilities to follow closely and promptly the long-range effects of drugs has lagged far behind.

This matter has been receiving increasing attention by all associated with production, use, and control of these commodities. The need for establishing a system for reporting untoward effects of therapeutic agents was emphasized by Dr. Chauncey D. Leake in an article on drug allergies.[1] Dr. A. H. Holland, Jr., Medical Director of this Administration, stressed this awareness in a paper he presented before the American Association of Medical Record Librarians and cited the need for developing improved methods of reporting untoward effects of drugs and other substances to a centralized agency.[2] At this meeting he invited the medical record librarians, through their national organizations, to participate with the Administration in a pilot study at a selected group of reporting hospitals. This opportunity to work together on this study was accepted. The President of the Association of Medical Record Librarians at the time, Helen D. McGuire, pointed out the interest of the Association in her recent article on the significance of medical records in therapeutics and the role of the medical record librarian in utilizing the full potentialities of medical records for the protection of the public health.[3] She stressed the many benefits to be achieved by all concerned in the development of such a program. These needs have been referred to by others in the published literature, in particular, by Dr. Harry Alexander in his recent book, "Reactions With Drug Therapy."[4]

The American Society of Hospital Pharmacists is likewise aware of the significance of this problem to your profession and to the hospitals of the country. At your last annual meeting in May 1955 a resolution was passed favoring a tripartite project on behalf of your association, the Food and Drug Administration, and the American Association of Medical Record Librarians. Much credit for this development is due your past president, Dr. George Archambault, who participated in some of the early discussions dealing with the necessity for the development of a reporting system. In a paper he presented at the last annual meeting of the American Association of Medical Record Librarians as your representative in this program, he pointed to the importance of this project.[5]

On June 20, 1955, a meeting was sponsored by FDA's Division of Medicine and the American Association of Medical Record Librarians, Committee on Reporting of Drug Reactions, in cooperation with the American Medical Association, American Society of Hospital Pharmacists, and the pharmacy and therapeutic committees of five general hospitals. At this meeting a program for transmitting this information was developed. It was agreed by the representatives present that benefits would accrue to their respective organizations as well as to the medical and related organizations with such an organized repository of information on drugs to which they could readily turn for assistance in dealing with special problems.

Participating Hospitals

The scope and nature of the problem was discussed and plans were outlined for developing and reporting information on adverse reactions as well as pointing up the associated responsibility of handling, evaluating, and disseminating data. The study was projected to continue for at least nine months by the five hospitals: Western Pennsylvania Hospital, Pittsburgh, Pa.; Oakwood Hospital, Dearborn, Michigan; St. Joseph's Hospital, Providence, R. I.; George Washington University Hospital, Washington, D. C.; and U. S. Public Health Service Hospital, Baltimore, Maryland. A report form was developed together with a guide to completion of the form.

In each of the five hospitals the medical record librarian in charge was designated to be responsible for submitting the reports to FDA. After six months of reporting it is readily apparent that the report form is usable and revealing. Yet the feasibility of continuing the program depends on the active and understanding cooperation of the pharmacists, physicians, and dentists. This will mark the approach to setting this program on a sound and enduring basis. The pharmacy and therapeutic committees in accredited hospitals serve as a ready entree. It is my understanding that about 1,700 hospitals have such committees. Among their stated purposes is the need to evaluate clinical data concerning drugs requested for use in the hospital. Through proper guidance at the direction of the pharmacist member on the committee the importance of reporting drug reactions can be effectively brought to the attention of the full committee. With such support, creditable accomplishments in drug therapy can be assured. In teaching institutions the benefits of encouraging reporting of this type can be looked upon as an education aid. It can be expected that effec-

tive and creditable reports and publications will be stimulated to add professional recognition.

It has already become evident in the processing of the reports submitted that the hospital pharmacist can make an immediate contribution by helping the medical record librarian obtain the necessary information as to the common or usual name of the drug, official or generic, when available, as well as the trademarked name. With the rapid introduction of new drugs the pharmacist is in a most informed situation since he has the drug labeling at hand for reference in order to supply the essential information to the responsible hospital staff. Through supplying detailed label information as well as taking an active role in learning about drug reactions, the hospital pharmacist can make a telling contribution to the entire staff.

Hospital Pharmacist's Role

The hospital pharmacist is in a ready position to develop information in his hospital environment as to the frequency and severity of drug reactions. He has the full records on drug purchase and supply. By cooperating with the hospital staff and keeping abreast of all reports of side effects, he can develop informative data as to the local situation. This will not necessarily allow for any general conclusions, yet it can serve well to focus on the events of significance in that environment. When more attention is given to this area of interest, we can begin to accumulate our experiences and gain knowledge which will effect more informative drug labeling and use.

Information should be acquired on all types of adverse reactions to all types of drugs. Our concept of an adverse reaction is any pathological change precipitated by a drug regardless of its nature or the circumstances of the occurrence, *i.e.*, toxicity caused by overdosage (therapeutic, accidental, suicidal, homicidal); hypersensitivity or allergy; injury from improper technique of administration, use of the wrong drug, error in compounding, labeling, or packaging; or from error in the manufacture of the drug or in its preparation for use in the hospital. The interest of FDA in receiving reports on hospital errors is not from the standpoint that it has jurisdiction over hospital practice (which it has not), but rather because of the value such information may have in uncovering deficiencies in manufacturing, packaging, or labeling.

Not only readily established reactions but also those in which there is a reasonable suspicion that a drug is responsible should be recorded. Mere suspicions are important because experience has shown that the accumulation of a number of similar incidents may point up the need for a thorough and intensive study which may reveal conclusive evidence for or against the agent.

Pilot Study

Through the pilot study it is feasible to query specifically about new drugs which are of immediate or special concern. With a broadened program and the cooperation of hospitals generally we can more readily keep abreast of the ever-changing patterns of drug uses and their effects.

As our study goes ahead we look forward to the time we may have a nationwide service with your full cooperation in order to acquire useful information which will be helpful in the administration of the Federal Food, Drug and Cosmetic Act. We all desire to prevent or minimize adverse reactions from drugs. The information gained through these sources may be used either through voluntary adoption by drug manufacturers or through legal applications to dangerous drugs. This would result either in removal of a dangerous drug from the market or in revision in the pattern of packaging or labeling to promote safety of use. For example, modification in the dosage schedule, or in indications for or contraindications against use of the drug, or in the addition of a warning or other precautionary statement might be undertaken to achieve the added protection.

Spokesmen for the cooperating groups said that their voluntary participation in this study was due to the benefits that they expected would accrue to their immediate organizations, as well as to the medical and related professions as a whole, through the existence of such an organized national repository of information on drugs to which they could turn for assistance and guidance.

While details are being studied as to a routine system of reporting, we look forward with much interest to your voluntary submission at any time of reports of unusual or unique reactions which you may encounter. Such information will be most helpful in maintaining the best drug supply in this country (and in the world) as well as the safest. Your cooperation and leadership in this area is actively sought in the interest of the public health and welfare.

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14 POINT PROGRAM

for promoting professional and public relations by the hospital pharmacist

by ROBERT A. WALSH *and* WILLIAM E. HASSAN, JR.

THE HOSPITAL PHARMACISTS OF THE NATION can, and in many instances do, carry on a professional and public relations program. The literature is replete with evidence of the need of promoting or selling pharmacy to its kindred professions and to the public.

The hospital pharmacists are in an excellent position to do our profession a great service because of their daily contact with the members of the allied professions and a sizable segment of the public.

Each year the pharmaceutical manufacturing industry spends $155,000,000 in order to detail the physicians in this country. Another $11,000,000 is spent in advertising their products in various journals; $48,000,000 is spent for direct mail to physicians; and $14,000,000 expended for samples and other forms of promotion. Imagine, a total of $228,000,000 to promote pharmaceutical products. To state one fact in a different light, it costs pharmaceutical manufacturers somewhere between $5.77 and $9.23 for each detail call made by the medical service representative on physicians.

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These figures are somewhat staggering, if not astounding. We cite them merely for the purpose of showing the extent of promotional activity which is carried on by the drug industry.

Opportunities

The hospital pharmacy in an average size hospital is the contact point for about 15 to 20 physicians each day in addition to a number of nurses, technicians, and other allied specialists. Therefore, hospital pharmacists can promote pharmacy by instituting and following through with a good professional relations program. Obviously the execution of such a program will cost very little from a monetary standpoint but will call for an investment of inspiration and perspiration on the part of those participating. Moreover, despite the tremendous amount of money spent by the drug industry, there are some physicians who just will not be detailed, will not read their direct mail or journal advertising or who cannot be contacted; but there are relatively few doctors who do not have hospital affiliations and, therefore, they can be contacted by the hospital pharmacist.

Our proposal for and the points contained in the professional and public relations program that we present are not original. They represent a compilation of ideas that have been gathered from many sources. They are presented with the full realization that they represent nothing more than applied common sense.

As we see it, a reasonable program of professional promotion for hospital pharmacy involves the application of the following points:

1. Publishing and Distributing a Pharmacy Bulletin.
2. Cooperating in Hospital Teaching Program.
3. Taking an Active Role in Administrative Committee Work.
4. Taking an Active Role in Pharmaceutical Organizations.
5. Cooperating with the Medical Research Staff.
6. Maintaining an Adequate Reference Library.
7. Cooperating with Nearby Retail Pharmacists.
8. Accepting Speaking Engagements.
9. Preparing Hospital Pharmacy Displays.
10. Developing and Maintaining the Hospital Formulary.
11. Maintaining an Efficient, Professional Pharmacy.
12. Being a Safety Expert.
13. Maintaining a Well Controlled Manufacturing Section.
14. Making Special Promotional Efforts.

Publish A Pharmacy Bulletin

Bulletins published by the hospital pharmacy should contain information on new as well as established drugs. Information pertaining to dosage forms, physiological incompatibilities, posology, toxicology, and pharmacology should be among the points of information offered. The bulletin offers an excellent opportunity for the chief of the hospital pharmacy to stress through an editorial, such things as pharmacy coverage, policy on refills, labeling, and sales to hospital personnel. Obviously, the frequency of publication is an individual matter with the various hospitals, however, regularity of publication will do much to insure its success.

Cooperate In Hospital Teaching

This facet of the professional relations program is one in which an alert hospital pharmacist will actively participate. The specialist in hospital pharmacy is adequately trained in the basic medical and pharmaceutical sciences to be able to cooperate in the teaching of pharmacology, microbiology, and pharmaceutical calculations to the student nurses. He is further qualified to teach prescription writing to the interns and residents and to carry out regular therapeutic reviews for the resident staff and graduate nurses.

Participate In Administrative Committee Work

There seems to be no limit to the number and kind of committees on which the hospital pharmacist may serve. This type of work offers him the opportunity of demonstrating his ability and college training in the medical sciences as well as business administration. Many hospital pharmacists are currently serving on such committees as the Policy Committee, Current Practice Committee, Safety Committee, Budget Committee, and the Medical Administrative Board.

Table 1*. Membership of Registered Pharmacists in Two National Pharmaceutical Organizations

No. of Reg. Pharm.	Belong to A.Ph.A.	Belong to N.A.R.D.	Not Affiliated
106,596	16,421	32,726	73,864
	or	or	or
94,710	15.4%	30.7%	69.3%
in retail stores			

Approximately 50,000 pharmacists belong to various state pharmaceutical associations.

Be Active In Pharmaceutical Associations

Every hospital pharmacist should be an active member of the American Pharmaceutical Association, the American Society of Hospital Pharmacists, and the pharmaceutical groups on a state as well as local level. This phase of our professional relations program is currently the weakest link. Part of the blame may be due to the fact that pharmacy in all of its branches is poorly organized. A review of the figures, in the following two charts, are both astounding and somewhat shocking for they reveal one of our greatest weakness and what we choose to call the "Achilles' Heel of Pharmacy."

Table 2*. Membership of Physicians in the American Medical Association

Total number of physicians in United States ..	240,000
Number in American Medical Association	150,000
Percent of members in American Medical Association	62.5%
If the American Pharmaceutical Association had the same percentage of members	66,618

*Figures are as of January 1, 1955.

Cooperate With Medical Research Staff

Clinical research, as it is conducted today, requires the cooperation of all of the allied health services. Pharmacy is no exception. The hospital pharmacist can become an integral part of this research in a number of ways.

First, he can be of invaluable assistance to the busy physician by controlling the inventory and distribution of the investigative material.

Second, he can maintain an accurate record on the chemistry, pharmacology, posology, and toxicology of the compounds being studied. This information is often times vital to another physician who is called in an emergency to treat a patient who is taking the research drug when the original investigator cannot be located.

Third, by suggesting and preparing better vehicles or physical forms of the new compounds undergoing trial.

Maintain Adequate Reference Library

Everybody is impressed by the extensive libraries usually found in the offices of successful lawyers and physicians. Insofar as the hospital pharmacist is concerned, a good library involves a good selection of the latest textbooks on pharmacy, pharmacology, microbiology, etc. In addition, a complete reference file of manufacturers' literature, cross indexed where possible, should be maintained. This type of file will be of great benefit to the physician, nurse, and students and of great value to the pharmacy staff.

Cooperate With Nearby Pharmacists

This phase of our program requires delicate handling on the part of those concerned. Many times the cry is heard from the retail practitioner of pharmacy that the hospital pharmacist is not cooperative and is driving him into bankruptcy because of the low prices quoted in hospitals for many medications. This fighting between the ranks is uncalled for and can be eliminated if both parties will learn to cooperate with and not compete against each other.

Some means of cooperation between retailer and hospital pharmacist are as follows: loaning each other products, making available from the hospital pharmacy special formula medications, supplying copies of prescriptions when legal restrictions do not apply, and finally, supporting organizations and legislation supported by the retail pharmacists.

Accept Speaking Engagements

The hospital pharmacist is usually the unseen but essential member of the hospital health team. Patients expect and get his services; however, they seldom if ever get to know anything about the role played by the hospital pharmacist.

Therefore, we believe that the public relations aspect, of our recommended program, can be greatly benefited if the hospital pharmacist will

give a part of his free time to the addressing of civic, fraternal, and church organizations.

Another means of creating good professional relations is to be of service to the pharmaceutical manufacturers by accepting invitations to appear on their sales training programs.

It goes almost without saying that hospital pharmacists should welcome a chance to appear on refresher course programs offered by the colleges of pharmacy.

Hospital Pharmacy Displays

The old Chinese proverb of "one picture is worth a thousand words" can be readily applied to this part of the program.

A display in the hospital lobby during National Pharmacy Week can do a great deal for both public and professional relations.

Displays depicting the role of hospital pharmacy in the hospital picture can be of inestimable value when arranged in conjunction with local medical and nursing conventions.

Develop And Maintain The Hospital Formulary

There is little need to elaborate on this topic since most hospital pharmacists are involved in this type of work. The modern hospital formulary is a far cry from the simple compendium of years ago and, therefore, reflects the education and training of the modern hospital pharmacist. In keeping the formulary up to date, the pharmacist has the opportunity of serving on the Pharmacy and Therapeutics Committee, of reviewing the new drug reports, and of separating the chaff from the wheat.

Maintain An Efficient Professional Pharmacy

A clean, well organized pharmacy with alert personnel can do much towards the furtherance of professional and public good will. It makes no difference where the pharmacy is located, how old it is, or how little equipment it has; it can still reflect cleanliness, organization, and alertness of personnel.

The effect of a good library and reference files, and committee participation have already been discussed.

Be A Safety Expert

According to Miss Nina Craft, Director of Nursing Services and Education, Los Angeles County General Hospital, Los Angeles, California, (see *Am. Prof. Pharm.* p. 730, Sept., 1953), "Fifty percent of the accidents to patients due to drug administration could have been eliminated for the nurses by the pharmacists."

Maintain A Well Controlled Manufacturing Section

Many hospital pharmacists are able to contribute vast savings to their institutions by manufacturing many standard formulas in large quantities. Tablets, solutions, ointments, and even ampuls are examples of these items that can be produced in this manner.

Special Promotional Efforts

This category is intended to allow for the ideas born as a result of deep thought and, in some instances, imagination.

One such promotional effort brought to our attention was the distribution of Christmas cards imprinted with names of the pharmacy staff and sent out to the various departments and staff members.

Another promotional effort was the distribution of hand lotion and hand cream manufactured in the hospital pharmacy to each new female employee of the hospital.

Summary

The points and the program that have been discussed are basic signs that can be followed on the road to better professional relations between all branches of the medical profession and the laymen.

Better understanding, however achieved, always leads to better and mutual respect.

A better program of professional relations will help us as pharmacists to better serve the needs of humanity. Perhaps the great Dr. Albert Schweitzer summed up what should be our real objective when he said:

> I do not know what your destiny will be, but one thing I do know: the only people who will be really happy are those who will have sought and found how to serve.

A CASE FOR

DISPOSABLE HYPODERMIC NEEDLES

by RANDALL B. TINKER

THIS ERA OF DISPOSABLE sick room and hospital supplies has brought forth several new and many newly-designed products. The hospital-packed, sterile, blood administration and intravenous feeding sets have been superseded by industrially-packaged, sterile, disposable units; the glass drinking tube has given way to the individually wrapped, flexible, disposable drinking straw; disposable rectal tubes and catheters have emerged to compete with conventional rubber ones and now—*a disposable hypodermic needle.*

Several questions may well be asked as to the need for such a product. What is wrong with reusing a hypodermic needle? Do disposable needles meet the recognized standards? Why discard precision workmanship and good material? What are the limitations of disposable hypodermic needles? Is their use not more expensive to the hospital?

These and other questions may be answered with a degree of general satisfaction by citing our investigation and experience with the disposable hypodermic needles at the Alachua General Hospital in Gainesville, Florida. The presentation of this paper, however, is not to be construed as an endorsement of any particular product.

Dangers of Reusing Needles

The first question raised may be answered empirically but only after considerable discussion. It has been said that there is nothing wrong with reusing a hypodermic needle *if* it is properly cleaned, properly resharpened, and properly resterilized. The reuse of hypodermic needles appears to be general procedure in possibly 95 percent of the hospitals throughout the United States at the present time. However, let us pursue this a bit further. During the course of the investigation many needles of various sizes and gauges were examined after reprocessing. It was observed (under 8 to 10 power magnification) that nearly all of the needles were *not* clean. In many cases adherent material was found in the cannula lumen and in nearly all cases metallic slivers were found to be adhering to both the inside and the outside of the cannula. Such slivers could be a definite health hazard. Further investigation conducted on needles secured from other hospitals confirmed our findings. Furthermore, it takes time to reprocess a hypodermic needle properly, valuable time which might be expended advantageously at some other important endeavor. A recent article by Hunter and his associates[1] indicates that 1.8 needles may be cleaned and resharpened in one minute. Such was not the fact observed during our study nor does it agree with estimated times for cleaning and resharpening on a per needle basis made by other institutions throughout Florida.[2]

With respect to the resharpening of hypodermic needles it may be stated that they may be resharpened to yield as sharp a point and one with as low a penetration index as that of a new needle, only if a person with a specially developed skill does the resharpening. Nearly all needles in the country today are processed with a "hollow ground" point, yet a flat stone is used in an attempt to sharpen the curved surface. It was established in our evaluation that in some cases the penetration index of the reprocessed needle which was considered ready for reuse had been reduced by as much as 30 percent. Therefore I

Presented to the Southeastern Hospital Conference of Hospital Pharmacists, Miami Beach, April, 1956.

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submit that the cleaning and resharpening of hypodermic needles cannot be accomplished readily and properly by the prevailing hospital techniques.

Avoiding Contamination

The foregoing arguments notwithstanding, if a hypodermic needle is disposed of (thrown away into the waste can) immediately after an injection of medication is made, a dual purpose is served. The patient who has just been given the injection becomes aware that no one else will be injected with that particular needle and, therefore, reasons that he did not receive his injection with a previously used or "second hand" needle. This is good patient psychology and maximum patient comfort has been assured.

The second purpose served is the more important inasmuch as the danger of contamination in a hospital is a very grave one. Infectious hepatitis and other cross-infections not nearly as dangerous nor traceable, are an ever present danger and almost every hospital has, at some time or other, had an outbreak of this disease. Recent articles in *The Journal of the American Medical Association,*[3] in *Public Health Reports,*[4] and in *Hospital Management*[5] substantiate the fact that in 1951 there were approximately 7,500 cases of infectious hepatitis reported in the United States and that by 1954 this figure had risen to an alarming approximation of 50,000 cases. Such an outbreak in any hospital could mean financial disaster. Therefore a new hypodermic needle, properly sterilized,[6] used once and discarded obviates any possibility of cross-infection either directly from an improperly cleaned needle or from a multiple dose vial contaminated by such a needle. The use of disposable needles therefore adds to patient protection and comfort and at the same time affords an extra degree of protection for the hospital.

Disposable Needle

The disposable hypodermic needle used in our evaluation* was manufactured in accordance with and conforming to the requirements spelled out in Federal Specifications GG-N-196 for hypodermic needles. Processing over and above that required in this specification adds only to corrosion resistance for reuse, for which this needle was *not* designed. In addition, the buffing of the cannula tends to leave a deposit of buffing compound (palmitates and stearates) which is difficult to remove from the outside of the cannula, let alone from the inside area which is not easily accessible to cleaning solutions. The necessity for such additional treatment is eliminated in the case of the disposable needle by the use of a burnished cannula.

Modern engineering principles, entirely new cleaning and boning methods, and statistical quality control have made possible the production of a hypodermic needle to recognized standards, embodying precise workmanship and good material yet possessing the attribute of disposability.

This new type needle may be used easily in conjunction with any syringe having a "slip-on" type

* The disposable hypodermic needles used in our evaluation were furnished by Roehr Products Company, Deland, Florida, and are now available on the open market through ABCO dealers throughout the United States.

A disposable hypodermic needle (right) is similar in appearance to the conventional needle (left)

tip. At present the hub length makes it inconvenient although not impossible, to use this needle with Luer-Lok type tip. It might be pointed out here that for general parenteral applications of aqueous solutions, oleaginous solutions or even suspensions, a "slip-on" type tip and "slip-on" type needle, properly joined, is wholly adequate. Disposable needles are at present limited in use to those of general parenteral administration.

Cost Studies

In order to determine the economic feasibility of disposable needles, a controlled survey was conducted as to the number, gauge, and length of the needles issued from the central supply area for use in the hospital wards over two two-week periods. We found that an average of 150 injections per day were being administered. These involved 17 different gauges and lengths of needles. After consultation with the nursing staff, the above number of different needles was reduced to eight. During these two periods, two time studies were conducted involving two different personnel groups in order to determine the average time required to reprocess the needles being used. It was found that approximately 2 minutes per needle were required.

The most difficult step of the evaluation was the determination of the number of times a particular needle was used. In order to make an accurate determination of this figure, 50 needles of each of the 8 sizes were withdrawn from inventory and placed in constriction tubes. After sterilization in the autoclave, these tubes were specially marked and the assemblies issued for use. Through the kind and willing cooperation of the entire medical and nursing staffs, needles in the marked tubes were used, returned immediately to their individual containers and sent to the central supply area for reprocessing and reissue. The personnel in this area were instructed to withdraw from circulation and to return to the pharmacy in its own container, any needle rejected for further use for one or more of the following reasons: (1) excessive barb; (2) bent, broken or otherwise damaged cannula or hub; (3) blocked cannula or hub; and (4) worn down too much for further reprocessing. In this manner a complete use history of each needle was obtained.

The calculation of the actual cost per injection associated only with the hypodermic needle (excluding medication and overhead charges) is shown in Table 1.

It is true that the cost per injection associated with the hypodermic needle will vary from institution to institution and is dependent upon the several variable factors. However, such were the determined figures as found in our evaluation.

TABLE 1. DETERMINATION OF COST PER INJECTION ASSOCIATED WITH HYPODERMIC NEEDLES

Average number of injections per day	150
Reprocessing time in hours	4
Average hourly wage of personnel involved	$0.75
Cost of cleansing and rinsing solutions	$0.30
Average number of times needle used	9
Average cost of new needle	$0.16

Replacement cost per needle per injection	$0.0177
Materials cost per needle per injection	0.0020
Labor cost of reprocessing per needle	0.0200
Total cost per injection	$0.0397

From the information in Table 1 it may be seen that over a period of one year appoximately 54,750 injections would be given at total cost to the hospital of $2,175.00. The use of the disposable hypodermic needles for the same number of injections would result in approximately an 11.5 percent saving. To this tangible saving must be added an intangible one for the time formerly spent in reprocessing needles in the central supply area is now being applied to other important operations.

Although this program involving the use of disposable hypodermic needles has been in effect at Alachua General Hospital for a period of only nine months, it has:

1. afforded additional protection to both the patient and the hospital against the ever present dangers of cross-infection.
2. increased the speed and facility of nursing service,
3. added to patient comfort, and
4. produced an economic saving.

*The writer wishes to express his appreciation to Mr. Raymond I. Matthews, Administrator of the Alachua General Hospital for his permission to publish the factual information shown in Table 1.

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18th Century England—
a scene at a fair

(II.) Representative Hospital Formularies of the 18th and 19th Centuries

Henry Banyer's Hospital Dispensatories

by ALEX BERMAN

ONLY THE BAREST FACTS are known about the English surgeon Henry Banyer. He lived during the first half of the eighteenth century, but there seems to be no record of the dates of his birth and death. In 1736 he was admitted an Extra-Licentiate of the Royal College of Physicians.[1] His training was received at St. Thomas's Hospital, London, and he is known to have practiced medicine at Wisbech. Two works have perpetuated his name—his translation of Johannes Van Horne's Work on Surgery in 1717 (*Micro-Techne; or a Methodical Introduction to the Art of Chirurgery*)[2] and his compilation of a hospital formulary first published anonymously in 1718 (see Fig. 1): At least four editions of Banyer's *Pharmacopoeia Pauperum*: *or, the Hospital Dispensatory* are known to have been issued—the anonymous one of 1718, and the editions of 1721, 1729, and 1739.

Earlier in 1718, just before the appearance of Banyer's *Hospital Dispensatory,* John Quincy had published his *Pharmacopoeia Officinalis and Extemporanea*: *or A Compleat English Dispensatory.* Probably apprehensive of the formidable competition which Quincy's much larger and learned production might offer, Banyer felt the need to justify his action to the public:

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1. Munk, William: *The Roll of the Royal College of Physicians of London.* 1878. Vol. 2, p. 131. Compare with the *Dictionary of National Biography* (Vol. I, pp. 1063-4) which states that Banyer was admitted as "extraordinary licentiate of the College of Surgeons on 30 July 1736".

2. Van Horne was professor of anatomy and surgery at the University of Leyden.

> It may seem strange to publish any thing of this kind, after a new Dispensatory that has drawn together all that is valuable in Medicine; but this Manual is ventured into the World, notwithstanding such Disadvantage, because it contains the Prescriptions of the most eminent Physicians in our Nation, which were contrived on purpose for the Poorer Sort of People; and are at present constantly used in the Hospitals of London: And therefore it is a collection of the most cheap and most efficacious Medicines, that the whole Art does supply.
>
> To render it more useful, here are annexed to every Prescription, Explanations of their Virtues and Uses, after the manner of Dr. Quincy, in his New Dispensatory.[3]

It is evident from the foregoing statements that Banyer hoped to promote the sale of his book through his emphasis on "most cheap and most efficacious Medicines" for the "Poorer Sort of People." That the author's hopes must have been at least partially satisfied is apparent from the printing of four editions of this work.

To the casual reader, the reference to "hospitals of London" mentioned on Banyer's title pages (see Figs. 1 and 2) may give the impression of many hospitals serving the city. Actually, the destitute ill of London could seek aid only at the Royal hospitals of St. Bartholomew and St. Thomas, while the Lock received a portion of the City's unfortunates suffering with venereal disease. Bethlehem Hospital ("Bedlam") was more a prison for the mentally sick than an institution for the cure of the insane.

Banyer's first edition appeared on the eve of the voluntary hospital movement. For almost two centuries England had existed with almost no hospital facilities, the aftermath of Henry VIII's suppression of monasteries and religious orders. Finally, the movement toward voluntary hospitals started in 1719 with the founding of Westminster; to be followed by Guy's (1725), St. George's (1733), The London (1740), The Middlesex (1745) and others. While hundreds of desperately needed beds were thus made available by these new hospitals, Garrison nevertheless states that "in respect of cleanliness and administration, these institutions sank to the lowest level known in the history of medicine," during the eighteenth century.[4]

Comparison of the 1718 and 1729 Editions

Only the first anonymous edition of 1718, and the third edition of Banyer's formulary were examined by this writer. A careful scrutiny of both editions shows slight differences. What really distinguishes the 1729 publication is the addition of about nine new formulas, a few additional comments scattered through the book on therapeutic uses of certain of the medications, and finally, an "index of diseases and their remedies" placed at the end of the work. In format and typography the first edition is smaller, containing 108 pages as against 128 of the third edition. It is clear from the tenor of these formularies that the author hoped for a large and profitable sale beyond the confines of hospital practice.

As for the physicians mentioned on the title page of the first edition,[5] Richard Mead (1673-1754) was one of the most celebrated practitioners of his time, serving for a period as physician to St. Thomas's. Two of the other men listed, Caleb Coatesworth (d. 1741) and Thomas Wadsworth (d. 1733) were also physicians to the same institution, while Dr. Salisbury Cade (d .1720) occupied a similar position at St. Bartholomew's. The "Dr. Hales" on the title page was probably Dr. Richard Hale (d. 1728).[6] Banyer was not certain how these physicians would react to having their names listed on the title page, for he writes in the preface:

> The Physicians whose Names this bears in the Title, it is hoped, will not in the least take it amiss, that what they have been at the Pains to contrive for the Use of those particularly under their Care, is in this manner made more extensive for a Common Good.[7]

Apparently some of these physicians did take it amiss, for we find Banyer dropping all allusion to the worthy doctors on the title page of the third edition and announcing with an injured air:

> The Method I have taken in explaining the Vertues and Uses of each Prescription, cannot, I hope, give any just Offence to the ingenious Composers thereof, who, as they designed them for the Publick Good, will by this Means have the Satisfaction of seeing them drawn out into a more generous Practice . . . and shall only add, that having heard some Distaste has been given by my prefixing the Names of our most eminent Physicians to the former Edition, I have avoided it in this; as I would do every thing that carries the least Appearance of Disrespect to those worthy Gentlemen, who are deservedly an Honour to the Faculty.[8]

3. In the preface to Banyer's 1718 edition.

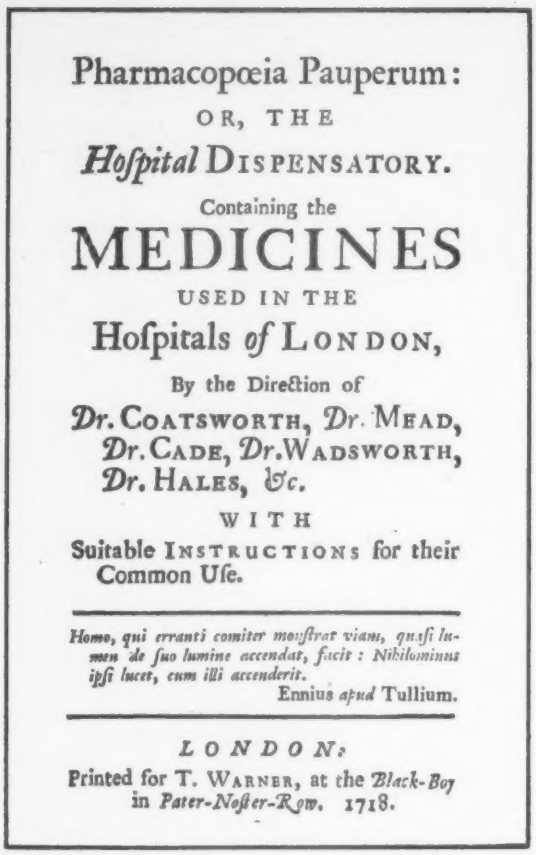
4. Garrison, F. H.: *An Introduction to the History of Medicine*, 4th ed., 1929, p. 399.

5. See Munk, *op. cit.*, Vols. 1 and 2, 1878. Banyer misspells Coatesworth's name on the 1718 title page. Cf. Munk, I, 478-479.

6. Munk, II, 48.

7. Preface of the 1718 edition.

8. Preface of 1729 edition.



Pharmacopœia Pauperum:
OR, THE
Hoſpital DISPENSATORY.
Containing the
MEDICINES
USED IN THE
Hoſpitals *of* LONDON,
By the Direction of
Dr. COATSWORTH, *Dr.* MEAD,
Dr. CADE, *Dr.* WADSWORTH,
Dr. HALES, *&c.*
WITH
Suitable INSTRUCTIONS for their Common Uſe.

Homo, qui erranti comiter monſtrat viam, quaſi lumen de ſuo lumine accendat, facit: Nihilominus ipſi lucet, cum illi accenderit.
Ennius *apud* Tullium.

LONDON:
Printed for T. WARNER, at the *Black-Boy* in *Pater-Noſter-Row.* 1718.

Fig. 1. Title page of Banyer's first anonymous edition of 1718.

Approximately twenty-three dosage forms were represented in the first edition.[9] In all, some 114 preparations were given of prescriptions employed in the hospital practice of London. Besides these preparations, eleven waters, ten syrups, two decoctions and one oxymel—all official in the *London Pharmacopoeia* of 1677—were listed. Except for the nine additional preparations and the slight differences already noted, the third edition retained all of the medications of the earlier book. In arrangement both editions were similar, with each prescription presented first in Latin, and then followed by an English translation. Therapeutic indications, dosage, method of preparation and related information were given in English.

9. The types and corresponding number of prescriptions listed were as follows: waters (5); powders (11); balsams (2); bolus (9); cataplasms (3); confections (1); decoctions (8); electuaries (11); clysters (6); plasters (5); gargles (3); draughts (7); infusions (3); juleps (5); linctus (1); mixtures (3); oxymels (2); pills (15); syrups (1); tinctures (6); wines (1); ointments (12).

Therapeutic Agents

As would be expected, the selection of prescriptions in Banyer's *Hospital Dispensatory* reflected the therapeutics then in vogue. Such recipes as the following which occur in this work are indicative of some of the more grotesque aspects of the healing art as then practiced:

Dr. W——'s Infusion of Millepedes

Take 4 pounds of live Millepedes, infuse them cold in 8 pints of White Wine for 14 Days; then strain for use.

This is an excellent Diuretick, and a most efficacious Medicine in all Chronic Cases that are to be relieved by promoting the Urinary Discharges, as are many scrophulous Disorders, and such as frequently are the Forerunners of scorbutick Dropsies, from a Retention of such Humours as foul the Viscera, and stuff the whole Habit with Water and Viscidities.

[p. 56, 1718 ed.; p. 59, 1729 ed.]

A Cataplasm for Bubo's or Carbuncles

Take of the larger Onions, and of Garlick, each 3 ounces, Powder of Spanish Flies 1 Dram, Mustardseed powder'd, London Treacle, Mithridate, and Pigeons-Dung, each 1 Ounce, Oyl of Scorpions a sufficient Quantity to make into a Poultus.

The Cases this is intended for, happen not frequently in the Hospitals: But when any Humours are critically discharged in malignant Fevers, which are sometimes attended with very surprizing Symptoms, this is a good Medicine both to help on their Discharge, and defend the Part against Mortifications and Gangrenes.

[p. 2, 1718 ed.; p. 19, 1729 ed.]

The Alexiteral Powder

Take Powder of Crabs Claws, red Coral white Amber, each 8 ounces, Crabs-Eyes 4 Ounces, Contragerva Root, Virginia Snake Root, and Angelico Root, each 2 Ounces, Bole-Armeniak 4 Ounces; mix into a Powder to take half a dram every 6 Hours.

This is the common Prescription in all Cases attended with a Fever, and it is continued till it raises a Diaphoresis, or terminates the Distemper by any other critical Discharge. This is preferable to many Powders ordered for the same purpose, tho' not so costly.

[pp. 89-90, 1718 ed.; pp. 94-95, 1729 ed.]

A good insight into the manner in which mentally ill patients were given medication is illustrated by the following:

Dr. Hale's Emetick Draught

Take of the Juice of Asarabacca [Asarum] 6 Drams, or an Ounce, Oxymel of Squills half an Ounce, Carduus-water 2 Ounces; mix into a Draught.

This is a very strong Emetick and is much used at Bedlam, amongst the Maniacks, for it will operate, when neither the Crocus [antimony oxide] nor any of the

common mercurial Emeticks will move them. And it has been confirmed by all Experience, that such Patients are much more difficult to be wrought upon, than any others, either by Catharticks or Emeticks; insomuch that they will bear enough at a Dose for 6 or 10 ordinary Persons: their Fibres, and all the Parts of the Brain, most particularly administring to Sensation, being extremely clogged with viscid Humours, which this medicine is very powerful in draining off; and upon the same Account likewise it is of such good Service as a Sternutatory; for it greatly drains the Head by the powerful Twitches and Vellications it gives to the Fibres of the Nose and Parts adjacent.
[pp. 54-55, 1718 ed.; pp. 56-57, 1729 ed.]

In certain diseases, the services of "old dobbin" were commandeered:

Dr. W——'s Powder against spitting Blood
Take of Horse-Hoof dryed 4 Ounces, Sugar of Roses 2 Ounces; make them together into a fine Powder, and take half a Dram every six Hours.
[p. 89, 1718 ed.; p. 94, 1729 ed.]

The Pleuretick Infusion
Take fresh Horse-dung 6 Ounces, Peniroyal-water 12 Ounces, Treacle-water 4 Ounces; infuse them warm, and to the strained Liquor add Mithridate 2 Drams, White Sugar a sufficient Quantity to sweeten it; drink half a Pint twice in a Day.
This is a very good Medicine for the purpose it is intended for, and will frequently procure Ease, when no other means will take place. If the Dose here mentioned be too noisome, it may be lessened, and repeated the oftner. This is likewise ordered in Distempers of the Breast, that are not a true Pleurisie, wherein it will do great Service, as in Peripneumony; and in Asthma, the common pectoral Drinks are not to be compared to it.
[pp. 89-90, 1718 ed.; pp. 94-95, 1729 ed.]

Despite the examples cited above, Banyer's formulary was free of many of the weird therapeutic agents found in the London Pharmacopoeia of his day, such as human fat, unicorn's horn, mummy, spiders' webs, moss from the human skull, bone from the stag's heart and lac virginale.[10] Although these substances were subsequently expunged from the official materia medica by the Royal College of Physicians in 1746, this august body still retained crabs' eyes, coral, bezoar stones, harts' horns, woodlice, pearls, vipers, and skinks' bellies.[11]

At one point, Banyer strongly criticized the "Emplaster of Frogs" of the Royal College, stating that "it was stuffed with many Ingredients, that are of no real Service, but only to perplex the Compounder, and amuse the Expectations of the Ignorant."[12] He indicated that Dr. Wadsworth's "mercurial Plaster" which was listed in Banyer's *Hospital Dispensatory* was a far superior product than the official preparation which called for live frogs and earthworms washed in white wine as part of the ingredients.[13]

In a real sense, Banyer's Hospital Dispensatories were the forerunners of the anonymous formularies bearing the title, *The Modern Practice of the London Hospitals,* which circulated in the latter half of the eighteenth century. Banyer's work may also be regarded as the lineal ancestor of Peter Squire's *The Pharmacopoeias of the London Hospitals* which appeared in the 1860's.

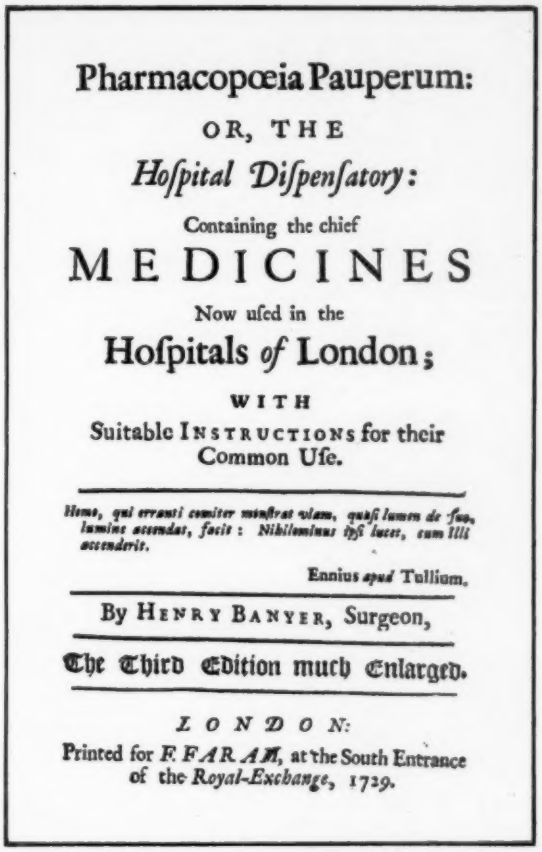

Pharmacopœia Pauperum:
OR, THE
Hoſpital Diſpenſatory:
Containing the chief
MEDICINES
Now uſed in the
Hoſpitals *of* London;
WITH
Suitable INSTRUCTIONS for their Common Uſe.
Homo, qui erranti comiter monſtrat viam, quaſi lumen de ſuo, lumine accendat, facit: Nihilominus ipſi lucet, cum illi accenderit.
Ennius *apud* Tullium.
By HENRY BANYER, Surgeon,
The Third Edition much Enlarged.
LONDON:
Printed for F. FARAM, at the South Entrance of the *Royal-Exchange*, 1729.

Fig. 2. Title page of Banyer's third edition of 1729.

10. Wooten, A. C.: *Chronicles of Pharmacy,* London, 1910. Vol. II, pp. 65-66.
11. *Ibid.,* p. 66.
12. Pp. 47-48 of the 1718 edition, and p. 48 of the 1729 edition.
13. John Quincy gave the formula for the official preparation in his *Pharmacopoeia Officinalis and Extemporanea: or a Compleat English Dispensatory,* 1718, p. 468. Quincy stated that "This is justly complain'd of for a very troublesom Composition, tho when made is of great value, and much in use."

An example of an apothecary Delft bottle for aromatic water, with angel decoration, 18th century, unsigned.

18th Century Delft drug jar with typical peacock motif, the most generally employed decoration on Delft drug jars during the latter half of the 17th and the first half of the 18th centuries. This jar carries the potter's mark of Johannis Pennis (1723-1774).

DELFT DRUG JARS

a book review

by GEORGE GRIFFENHAGEN

PHARMACISTS IN GENERAL, and collectors of pharmaceutical antiquities in particular, should be pleased to learn that Dr. Wittop Koning's excellent publication *Delftse Apothekerspotten* (Deventer, Holland, 1954) has now been published with an English translation appended. After

DELFT DRUG-JARS, 1956, D. A. Wittop-Koning, B.Ph., Dr. Sc., 217 pages. Published by the Ysel Press Ltd., Deventer, Holland. 17 x 24 cm. Dutch version with 92 illustrations, 8 in color,—(first published in 1954) with English translation. Price $7.00.

a study of more than 1000 Delft apothecary jars, Dr. Wittop Koning presents a survey of this special branch of Delft pottery.

From this fascinating study, we learn of the development of Dutch ceramic drug jars commencing in the 16th century when the art of tin-enamelling earthenware was introduced into The Netherlands. The earliest Delft drug jars were generally decorated in a typical leaf decoration (called foglie-motif) characteristic of the Venetian majolica. One such example in the Victoria and Albert Museum in London, England, is dated 1593. A period of transition in the decoration of Delft pottery lasted for nearly a century (1570-1670). Decorations such as birds, baskets of fruit, and angel heads gradually found their place on the typical Delft drug jars. This transition led to the well-known peacock-motif which was in use as early at 1665, and was the most generally employed motif for the following hundred years. Only in the second half of the 18th century do we find a great variety of other motifs in Delft drug jars.

In describing the shapes of various Delft drug jars, Dr. Wittop Koning classifies them as jars with a spout, bottles, cylindrical jars, and vases. Of the jars with a spout (chevrettes or ewers) there are syrup-jars, oil-jars, and honey-jars. Bottles are further grouped into those designed especially for aromatic waters, and those for wines. The oldest shape of the cylindrical jar is the albarello, the tall slim jar, slightly constricted in the middle. This form was often found in Delft pottery during the transition period from majolica, but in pure Delftware it was replaced by the "uninteresting rounded shoulders and foot, connected by a cylinder, very practical for cleaning, but boring to the eye." Vases are described as large jars of deviating shapes. These large vases were most likely made for decoration only, and therefore they were hardly ever marked with an inscription.

Potter's marks are valuable sources of information for documenting ceramic drug jars. Of the some 1000 Delft drug jars which Dr. Wittop Koning examined, about 30 percent are so marked. Potter's marks identified by Wittop-Koning include the following:

The Greek A	Adrianus Kock (1686-1701)
Three ash-bins	Hendrik Van Hoorn (1757-1803)
Gilt flower-pot	Pieter Verberg (1756-1789)
Porcelain axe	Hugo Brouwer (1775-1788)
Porcelain bottle	H. A. Piccardt (1804-1876)
Deer	Jan Van Der Laen (1675-1693)
Peacock	Gerrit Pietersz Kam (1668-1705)
Old Moor's head	Geertruy Verstelle (1764)
Metal pot	Ary Jeronimus Van Der Kloot (1708)
Two boats	Anth. Pennis de Jonge (1757-1770)
Porcelain dish	Johannis Pennis (1723-1774)

Other markings, such as the claw and the three bells, are as yet unidentified as to the potter's name. The latter (the three bells) was, surprisingly enough, used by the most productive factory, and the one with the greatest variety of designs.

The fame of Delft pottery, and also of the Delft drug jar, induced many countries to undertake the production of imitations. These included factories in Berlin, Brussels, Lille, and Tournay. Even more recently modern jars have been placed on the market with the old marks and motifs. Wittop Koning describes methods of recognizing these imitations and fakes from the original Delft drug jars.

This whole work is supplemented, or rather augmented, by 92 photographic illustrations, 8 of which are in full color. Only by examining the book itself can one appreciate and understand fully this interesting study of pharmacy history collecting. Copies are available directly from the publisher (Ysel Press) in Deventer, Holland, or this writer has a small supply on hand which can be obtained by sending your check in the amount of $7.00 to George Griffenhagen, 909 Hodge Place, Falls Church, Virginia.

GEORGE GRIFFENHAGEN is Acting Curator, Division of Medicine and Public Health, Smithsonian Institute, Washington, D. C.

Two Delft drug jars from the Medical Pharmaceutical Museum of Amsterdam. On the right is a typical syrup jar with spout.

therapeutic TRENDS

edited by WILLIAM JOHNSON

Methitural—An Intravenous Anesthetic

Methitural is the sodium salt of 5-(2'-(methylthioethyl)-5-(1-methylbutyl)-2-thiobarbituric acid. It is a hygroscopic, yellow, crystalline material possessing a slight mercaptan odor. It is readily soluble in water, yielding a *p*H of 9.5 in 10 percent solution. The aqueous solution is unstable on autoclaving and exposure to light. The addition of sodium carbonate stabilizes the solution and prevents precipitation over a period of 24 hours.

Investigations in the cat, dog, and monkey showed methitural to possess two-thirds the anesthetic potency of thiopental. Following equivalent anesthetic doses, recovery from anesthesia was significantly more rapid with methitural than with thiopental, and cumulative action with methitural was considerably less than that observed with either thiopental or thiamylal. There was less respiratory depression and less cardiac acceleration with methitural than with thiopental anesthesia, but a greater incidence of reversible cardiac arrhythmias and abnormal vagal reflexes which were reduced or abolished by atropine premedication. Atropine, morphine, succinylcholine, *d*-tubocurarine, and combinations thereof were found to be compatible with methitural in the dog. Atropine, as well as morphine, significantly increased the depth and duration of anesthesia and extended recovery of the righting reflex. No tolerance or cumulative action was noted in the dog following daily intravenous administration of methitural (45 mg./Kg.) or thiopental (25 mg./-Kg.) for thirty days. Microscopic examination of the tissues following chronic administration showed thiopental to be considerably more toxic to the liver than methitural. This investigation was reported by Irwin et al in *J. Pharmacol Exptl. Therap. 116*:317 (March) 1956. Methitural is a product of the Schering Corporation.

Morpholinoethylnorpethidine

In investigating the analgesic action of a series of aminoalkyl derivatives of pethidine, morpholinoethylnorpethidine was found to have an analgesic activity of at least three times that of pethidine in rats. Its analgesic activity in rats and dogs is between that of pethidine and morphine. This new compound depresses respiration in several species and in rats this action is as powerful, relative to its analgesic potency, as that of morphine. Its actions on the cough reflex in anesthetized cats; on rectal temperature in rabbits; on pupil diameter in mice, cats, and dogs; and on heart rate in dogs also resemble those of morphine. Similarly it abolishes the peristaltic reflex of isolated guinea-pig ileum. In cats it produces morphine-like excitement. Its effects on pain threshold, respiration, and the cough and peristaltic reflexes are antagonized by nalorphine. The results of this investigation are reported by Green and Ward in *Brit. J. Pharmacol. Chemother. 11*:32 (March) 1956. The morpholinoethylnorpethidine for this investigation was supplied by J. F. Macfarlan & Co. Ltd.

BL700B—An Anticholinergic Drug

Although many of the newer antisecretory drugs appear to be more effective than atropine, none thus far have been able to produce the desired degree of secretory inhibition consistently without side effects. In addition, they are all much less effective orally than parenterally. A study of BL700B by Judge et al as reported in *J. Lab. Clin. Med. 47*:950 (June) 1956 concerns the pharmacologic evaluation of this drug in human subjects. This investigation has been directed toward determination of an effective and practical dose; comparison of antispasmodic and antisecretory effects with a standard (atropine sulfate); and evaluation of undesirable side effects and tolerance. Dosage response data indicate that 10 to 25 mg. of BL700B orally administered will significantly reduce gastric acidity and secretory volume without significant side effects in normal male subjects. Oral administration of 12.5 mg. was superior to 0.6 mg. of atropine sulfate in its effects on gastric secretion. The oral administration of 12.5 mg. to 25 mg. was superior to atropine sulfate, (0.6 to 1.0 mg.) orally administered, in its effect on gastric motility. No tolerance to the secretory or motility inhibiting effects of BL700B was demonstrated after administration of 12.5 mg. four

times daily for seven days. BL700B, *alpha, alpha,* diphenyl-*gamma*-dimethylamino-butyramide-etho - bromide, was supplied by Bristol Laboratories, Inc.

A New Synthetic Analgesic

Acetylmethadol is a synthetic analgesic made from the two isomers of methadone. The racemic preparation is an equimixture of each acetylmethadol isomer. David *et al* report in *J. Am. Med. Assoc. 161*:599 (June 16) 1956 on the use of this drug in the management of chronic pain. The outstanding advantage of this drug is that the same dosage may be used over several months to keep the patient comfortable without severe side effects. Tolerance appears slowly and only when larger daily doses of about 30 or 40 mg. are employed. Addiction is mild. Doses of 5 to 10 mg. given orally three or four times a day were well tolerated, safe, and highly effective on continued use. Good relief of pain with a minimum of untoward effects was provided both the ambulatory or the bedfast patient. With large daily doses (30 to 50 mg.), constipation was bothersome. The majority of the patients in this series were those with chronic pain due to cancer or other causes. The racemic alpha acetylmethadol was supplied by Merck & Co.

Carbimide In The Treatment of Alcoholism

The syndrome caused by alcohol after carbimide (cyanamide) has been called "mal rouge." It is characterized by intense flushing of the face and neck and often the whole body, accompanied by a pounding heart, a rapid pulse, and panting respiration. At this stage acetaldehyde can be tasted or smelled by the subject on his breath. The severity of the reaction depends on the amount of carbimide in the system and the amount of alcohol taken. A severe reaction is a terrifying experience, but the more dramatic symptoms usually subside in a few hours and the patient is usually none the worse after 24 hours. Carbimide itself is not suitable for use as a drug and it is difficult to obtain in quantity in a pure state. Technical grades of this drug have been found to contain many dangerous impurities including cyanides. Highly purified calcium carbimide was prepared by North American Cyanamid Ltd. and a suitable, slow release tablet was developed by Lederle Laboratories containing citrated calcium carbimide. The citric acid is necessary to neutralize the calcium and to provide additional acid to keep the *p*H of the medium below 4 or 5. Ferguson reports in *Can. Med. Assoc. J. 74*:793 (May 15) 1956 that clinical trials are in progress at present. Experience to date has been sufficiently encouraging to warrant this preliminary description of the new preparation and its properties. It is expected that the new drug, used under medical supervision, will be safe and free from many of the troublesome side effects produced by disulfiram (Antabuse). Citrated calcium carbimide is to be marketed under the trade name Temposil by Lederle Laboratories.

Panafil Ointment

The Panafil ointment used in this study contained papain 10 percent, urea 10 percent, and water-soluble chlorophyll derivatives 0.5 percent in a hydrophilic base. On the basis of results in 24 cases of decubitus ulcers in elderly mental patients, it is concluded that the new papain-urea-chlorophyllin ointment is superior to any agent previously used for the management of these lesions. Miller reports his findings in using this ointment in *N. Y. State J. Med. 56*:1446 (May 1) 1956. Panafil ointment is an efficient debriding agent; it encourages the early formation of healthy granulations; and it reduces malodors of wounds rather uniformly within twenty-four to forty-eight hours. Use of the same ointment minus the chlorophyllin content in 15 cases demonstrated that the chlorophyllin is essential in the combination for the purpose of neutralizing inflammatory products of the enzymatic process. Of the 24 cases treated, 23 progressed to complete healing. In none of the decubitus cases was irritation or other untoward reaction noted. The Panafil ointment used in this series was supplied by the Rystan Company.

Ro 2-5655/3—An Anthelmintic

The treatment of pinworm infestation is described by Yeager in *Southern Med. J. 49*:539 (May) 1956, using (m-alloxyphenylcarbamylmethyl) dipropyl (p-chlorobenzyl) ammonium chloride monohydrate, which has been tenatively designated as Ro 2-5655/3. Children selected for this investigation ranged in age from two to eight years. The use of sealed pants or other special garments, and hand restraints were not prescribed. By the same token, and because cooperation of the parents and other relatives seemed doubtful, complete eradication of the ova in the household was not attempted. Simple instructions in hygiene of the perianal area, hands, fingernails, and clothes were, however, given to the family contacts as well as to those children old enough to cooperate. Three groups (18, 29, and 12 patients) were treated for three days with a dosage of 30, 40, and 50 mg./Kg./day respectively. In the first group 72 pecent were classified as successfully treated. In the second group 89 percent were classified as successfully treated and all completed three days of treatment although 11 percent complained of mild stomach cramps on the second day. Five patients of the

third group complained of moderately severe cramps and mild diarrhea on the second day and were unable to complete treatment. The other seven of this group completed treatment and were cured. No systemic reactions were noted at any time in this study. The optimum dosage level appears to be between 40 and 50 mg. per Kg. per day and treatment should be carried on for at least three days. Ro 2-5655/3 for this study was supplied by Hoffmann-La Roche Inc.

Anticonvulsant In Petit Mal Epilepsy

PM 396 is N-methyl-a,a-methylphenyl succinimide and was synthesized in the laboratories of Parke, Davis and Co. Zimmerman reports on the use of this drug in the treatment of petit mal epilepsy in *N. Y. State J. Med. 56*:1460 (May 1) 1956 after a series of 100 patients. The average daily dose schedule in this series of 100 intractable petit mal cases was 1 Gm. in units of 0.3 Gm. The range of effective dosage was wide, varying from 0.3 to 2.7 Gm. per day. Medication was initially administered 0.3 Gm. daily for one week and was increased 0.3 Gm. each week until optimal dose was reached or until attacks were controlled. Toxic symptoms were noted in 11% of the patients and included rash, ataxia, dizziness, and drowsiness. Some toxic symptoms could be reduced or eliminated entirely by a reduction in dosage level, but in the case of drug rash the medication was discontinued entirely. The toxic side effects are greater with PM 396 than with Milontin, but the differences are essentially quantitative rather than qualitative. PM 396 is the drug of choice to be used when milder drugs fail.

Glaucarubin—An Amebacide

Compounds possessing potent amebacidal properties in experimental amebiasis have recently been isolated from plants of the genus simarouba (*Simarouba amara* and *S. glauca*). One of these fractions, a crystalline glycoside, has been designated glaucarubin. In *Am. J. Med. 20*: 412 (March) 1956, del Pozo and Alcaraz present the results of the clinical trial of glaucarubin in the treatment of amebiasis. Seventy-eight patients with chronic amebiasis and nine patients with amebic dysentery were treated with glaucarubin. The patients were studied in six different groups. The daily dose varied from 10 to 280 mg. and the duration of treatment varied from five to thirty-two consecutive days. Clinical improvement was evident from the first to the sixth day after treatment had begun. No toxic symptoms were noted and the drug was well tolerated. Parasitologic examinations of the stool gave negative results as early as the first day of treatment; in only two patients did parasites persist. No changes were detected in blood counts and differentials in thirty-six patients or in liver function tests which were performed on ten patients before and after treatment. After treatment was terminated fifty-four patients were observed for a period of one to thirteen months. Eight of the patients with chronic amebiasis developed recurrence of *E. histolytica*. Glaucarubin for this study was supplied by Merck and Co., Inc.

McN-A-29-11—In Experimental Cardiac Arrhthymias

Since the ortho substituted benzoic acid ester of dialkyl aminoalkanol (McN-A-29-11), a recently synthesized local anesthetic, is a chemical compound somewhat similar to procaine; it seemed worthwhile to Arora *et al* to determine if it also shares with procaine the ability to combat arrhythmias. Their findings are published in *J. Pharm. Pharmacol 8*:323 (May) 1956. The drug is a white, crystalline, odorless, and stable substance with a bitter taste. It is freely soluble in water, and the solution was used throughout the study.

The action of this drug was compared with that of quinidine sulfate. McN-A-29-11 was shown to exhibit an activity stronger than quinidine in experimental auricular flutter and aconitine-evoked auricular fibrillation, but was equivalent to quinidine in its effects on the refractory period of isolated auricles and acetylcholine-induced auricular fibrillation in dogs. It was found less effective than quinidine in averting ventricular arrhythmias produced by hydrocarbon-adrenalin in dogs. Because of the lower toxicity of McN-A-29-11 compared with quinidine; these investigators believe that the drug shows sufficient promise to warrant clinical trial. McN-A-29-11 was supplied by McNeil Laboratories.

Hydroxydione—An Anesthetic Agent

Hydroxydione, 21-hydroxypregnanedione sodium succinate, is a soluble steroid which has pronounced central nervous system depressant action in a number of animals including mice, rats, rabbits, dogs, and monkeys. It could be administered intravenously or orally to induce a state of surgical anesthesia in which the animal could be operated upon without the use of analgesics.

S. Y. P'an, *et al.* report in *J. Pharmacol. Exptl. Therap. 115*:432 (December) 1955, that because of the wide range of safety and minimal respiratory and cardiac depression, hydroxydione has promise of superiority over the ultra-short acting thiobarbiturates for clinical application in basal or general anesthesia.

timely drugs

Albamycin

. . . a new antibiotic produced by *Streptomyces niveus*, n. sp., has been announced by the Upjohn Company. This drug is indicated in the treatment of staphylococcic infections, particularly in patients who are allergic to other antibiotics or in infections in which the organism is resistant to other antibiotics and sensitive to Albamycin. Administered by mouth, Albamycin (novobiocin, Upjohn) is rapidly absorbed, producing peak concentrations in the blood within two or three hours. High levels are present at eight hours, and detectable amounts remain in the serum for as long as 24 hours.

While overgrowth of nonsusceptible bacteria has not been reported, constant observation of the patient is essential. The possibility of liver damage should be considered when a yellow pigment, a metabolic by-product of novobiocin, appears in the plasma.

The recommended dose of Albamycin in adults is 1 Gm. initially followed by 250 mg. every six hours, or 500 mg. every 12 hours, continued for at least 48 hours after the temperature has returned to normal and all evidence of infection has disappeared. In severe or unusually resistant infections, 0.5 Gm. every six hours or 1 Gm. every 12 hours may be employed. The dose for children in similar infections is 15 mg. per Kg. of body weight per day for moderate acute infections, and may be increased to 30 to 45 mg. per Kg. per day for severe infections.

Albamycin is supplied as 250 mg. capsules in bottles of 16 capsules.

Atarax

. . . a new ataraxic designed to induce "peace of mind" in the emotionally stressed patient, has been introduced by J. B. Roerig and Company, division of Chas. Pfizer & Co., Inc. A brand of hydroxyzine, it is one of a series of *p*-chlorobenzhydryl piperazine derivatives and is designated chemically as the 1-(*p*-chlorobenzhydryl)-4-[2-(2-hydroxyethoxy)ethyl] diethylenediamine.

Clinical tests during the past two years have shown Atarax to be effective as a calming agent in the symptomatic treatment of many diseases in which emotional strain is a complicating or even a causative factor. It is emphasized that the drug is for the tense, emotionally disturbed, normal person seen in the office of a general practitioner, not the hospitalized, mentally ill patient.

For infants and children Atarax is indicated for restlessness, nervous tics, hyperactivity, nightmares, and anxiety or homesickness caused by a temporary separation from the parents. For adults Atarax is indicated for apprehension and anxiety associated with pregnancy, parenthood, financial worries, premenstrual tension and dysmenorrhea, insomnia, senile excitation, premedical, predental or preoperative apprehension and tension, fatigue, climacteric, and occupational stress.

Assimilation of the Atarax tablet is rapid, and calming effect is said to begin within 15 minutes. Therapeutic effect is generally at its maximum within two hours. It then abates and generally disappears after six to 20 hours.

Dosage varies with the individual and must be tailored by the physician to meet the needs of the patient. Dosage may range from one to two 10 mg. tablets to four 25 mg. tablets daily. Atarax is available as sugar-coated tablets in potencies of 10 mg. (orange) and 25 mg. (green), in bottles of 100.

Colace

. . . is Mead Johnson and Company's name for the surface active agent dioctyl sodium sulfosuccinate. By reducing surface tension, Colace increases the wetting efficiency of fluids in the colon. By this physical action it allows fecal material to retain enough water to keep stools soft. It also permits water to penetrate and soften hard, dry feces. Its action is gentle and gradual. Stools can usually be passed normally and easily 1 to 3 days after administration is begun.

Colace is indicated (a) in the treatment and prevention of constipation; (b) in the treatment of fecal impaction; and (c) in many conditions requiring maintenance of soft stools, such as pregnancy, cardiovascular disease, proctologic conditions and abdominal surgery.

The oral dosage of Colace for older children and adults with mild constipation is one or two 50 mg. capsules daily; for moderate to severe constipation the initial dosage is 100 mg. twice daily for 3 days, then 50 to 100 mg. daily as a maintenance dose.

For infants and children under 6 years the initial dosage is 1 to 2 ml. of a 1 percent solution twice daily followed by a maintenance dose of 0.5 to 1 ml. twice daily. The Colace solution should be administered in half a glass of milk or fruit juice.

The dosage of Colace to facilitate expulsion of barium following x-ray is 100 to 200 mg. after fluoroscopy. Alternatively, 10 to 20 ml. of the 1 percent solution may be mixed with the barium before administration.

When used as a retention enema 5 ml. of the 1 percent Colace solution is added to 90 ml. of enema fluid. For a flushing enema 1 ml. is added to each 100 ml. of enema fluid.

Colace is available as 50 mg. capsules, bottles of 30, and as a 1 percent solution (30 ml.) with calibrated dropper.

Cytomel

. . . a new agent for treatment of metabolic insufficiency, is now available from Smith, Kline & French

Laboratories. The signs and symptoms of the metabolic insufficiency syndrome are physical sluggishness, slowed down mental capacity and decreased emotional control, and decreased function in various organs and organ systems—gynecologic disorders, joint or muscle stiffness, male infertility, etc. A positive effect will often be seen with Cytomel within several days. Like other metabolic stimulants, Cytomel (l-triiodothyronine, S.K.F.) should be used with caution in the presence of angina pectoris, cardiac disease, ischemic states, or adrenal insufficiency.

Cytomel may be administered in single or divided daily doses. The dosage is dependent upon (1) the indication for treatment, and (2) the response of the patient. It is supplied as 5 mcg. and 25 mcg. tablets in bottles of 100 tablets.

Deladumone

. . . is E. R. Squibb's name for a combination of their testosterone enanthate (90 mg. per ml.) and estradiol valerate (4 mg. per ml.). A single injection of 1 to 2 ml. of the combination provides 2 to 4 weeks of safe, balanced, hormonal action, and is useful in the treatment of the menopausal syndrome and for osteoporosis in men and women. Use of the combination is contraindicated in patients who have or had suspected or established mammary or genital (including prostatic) malignancy.

Deladumone is available in vials of 1 and 5 ml.

Diovac Syrups

. . . nonlaxative correctives for all degrees of constipation, are now being marketed by the Gray Pharmaceutical Co. Diovac (dioctyl sodium sulfosuccinate, Gray) promotes normal bowel function by enabling moisture to penetrate and soften the hard, dry fecal mass.

Adult dosage of Diovac syrup is one to two teaspoonfuls daily, followed by water; for children six years or older, one to two teaspoonfuls daily, followed by water; and for children under six the dosage may be adjusted as needed.

Diovac syrup is mint-flavored for adults, in 6-ounce bottles; Diovac Pediatric syrup is cherry-flavored and available in 4-ounce bottles.

Donnagesic Extentabs

. . . (Donnatal with Codeine Extended Action Tablets), have been released by A. H. Robins Co., Inc. They are designated as No. 1 and No. 2. Each No. 1 tablet (pink) contains hyoscyamine sulfate 0.3111 mg.; atropine sulfate 0.0582 mg.; hyoscine hydrobromide 0.0195 mg.; phenobarbital 48.6 mg.; and codeine phosphate 48.6 mg. Each No. 2 (red) tablet is the same as No. 1 with the exception that it contains double the quantity of codeine phosphate, 97.2 mg.

Donnagesic Extentabs provide an extended action codeine. The analgesic effects, smoothly sustained for 10 to 12 hours, are equivalent in intensity to those achieved by administration of Donnatal and codeine separately every four hours. They are indicated for sustained, somatic, and visceral pain amenable to treatment with oral codeine; and for persistent, unproductive cough, and persistent productive cough when it prevents or seriously interferes with rest and sleep. The usual dosage is one Extentab No. 1 or No. 2 every 10 to 12 hours. However, if necessary, two tablets may be given at one time and/or the dose more frequently. Donnagesic Extentabs are packaged in bottles of 30 tablets.

Frenquel

. . . an anti-hallucinatory, anti-confusion drug indicated for acute schizophrenic reactions, is available from the Wm. S. Merrell Company. Best results have been observed in the acute schizophrenic reactions. It is not recommended in psychotic depressive states, obsessive-compulsory disorders, and anxiety reactions.

The dosage of Frenquel (azacyclonol, Merrell) is 20 mg. three times daily by mouth. If larger doses are used, blood pressure should be observed and blood cell counts done frequently. Frenquel is supplied as aqua-blue tablets of 20 mg. in bottles of 100.

Hydeltracin

. . . a topical lotion providing highly effective anti-inflammatory, anti-infective therapy for a wide variety of allergic and inflammatory conditions complicated by itching and infection, has been released by Sharp & Dohme, Division of Merck and Co. Hydeltracin has been effective in contact dermatitis; allergic reactions to poison ivy and oak, drugs, cosmetics, etc.; atropic dermatitis; allergic eczema; seborrheic dermatitis; insect bites; and other dermatitis conditions.

A small quantity of Topical Lotion Hydeltracin applied two or three times daily should provide an adequate response in most instances. Best results may be obtained by thoroughly cleansing the affected area before applying the lotion.

Hydeltracin 0.5% Topical Lotion is supplied in 15 ml. plastic squeeze bottles and each ml. contains 5 mg. prednisolone and 5 mg. neomycin sulfate.

Mephyton Tablets

. . . have recently been made available by Sharp & Dohme, Division of Merck & Co. Oral Mephyton (vitamin K_1, Merck) is the most dependable agent for prophylaxis of hemorrhagic complications of hypoprothrombinemia resulting from vitamin K deficiency due to biliary tract dysfunction, faulty absorption of vitamin K, or use of oral antibiotics, salicylates, anticoagulants, or other prothrombin-depressing agents. It is effective against Dicumarol, Cumopyran, ethyl biscoumacetate, as well as phenindione, Dipaxin, and other phenylindanediones.

The dosage of Mephyton tablets where the hazard of hemorrhage is not immediate, as an antidote to anticoagulant effects, is 5 to 10 mg. initially. If prothrombin time has not been satisfactorily shortened in 12 to 48 hours, this dose is repeated. For relative vigorous action, 15 to 25 mg. or more may be used depending on the physician's judgment and the clinical situation. For surgery, up to 50 mg. of oral Mephyton may be given at least 24 hours preoperatively (12 hours preoperatively if intravenous Mephyton is used), along with temporary discontinuance of anticoagulant. For hypoprothrombinemia due to obstructive jaundice and biliary fistula, as much as 20 mg. or more daily may be required with concomitant administration of bile salts.

Mephyton tablets are available as 5 mg. scored, compressed tablets in bottles of 100 tablets.

Meti-Derm with Neomycin Ointment

. . . a topical corticoid-antibiotic ointment containing Meticortelone (prednisolone) and neomycin sul-

fate, is being marketed by the Schering Corp. Combining a highly potent corticosteroid with marked anti-inflammatory activity at tissue level and a broad-spectrum antibiotic, Meti-Derm (prednisolone topical) with Neomycin Ointment suppresses the manifestations of allergic skin conditions and simultaneously helps check associated infection.

It is recommended for topical treatment of allergic dermatoses and allergic skin reactions, particularly those likely to become secondarily infected. Specific indications include atopic dermatitis (allergic eczema, food eczema, infantile eczema, nummular eczema, eczematoid dermatitis, pruritus with lichenification, nonspecific pruritus of anus, vulva, and scrotum, disseminated neurodermatitis), and contact dermatitis due to plants (rhus poisoning) and other substances.

Meti-Derm with Neomycin Ointment decreases edema, pruritus, erythema, infiltration and helps prevent secondary infection. Lesions fade and become flattened. Alleviation of pruritus is followed by diminished scratching and excoriation.

Meti-Derm with Neomycin Ointment is supplied in 10 Gm. tubes, and each gram of the ointment contains 5 mg. prednisolone and 5 mg. neomycin sulfate (equivalent to 3.5 mg. neomycin base) in a white petrolatum base with methylparaben and butylparaben as additional ingredients.

Neobon Liquid

. . . a tonic which provides a combined attack against nutritional, physiological, and mental depression in persons of the middle and older age groups, has been introduced by J. B. Roerig and Company, division of Chas. Pfizer & Co., Inc. Designed to improve the appetite and well-being of geriatric patients, Neobon Liquid is a pleasant-tasting, fruit-flavored liquid which promotes hematinic action and improved protein and carbohydrate utilization by supplementing declining gonadal and thyroid hormone production, and by inducing a mild antidepressant effect.

Each 5 ml. teaspoonful contains ethinyl estradiol 1 mcg.; methyltestosterone 1 mg.; liver fraction 1 N.F. 25 mg.; vitamin B_{12} 2.5 mcg.; folic acid 0.17 mg.; vitamin C 50 mg.; ferrous gluconate 30 mg.; l-thyroxine 0.1 mg.; dextroamphetamine sulfate 0.5 mg.; and 10 percent alcohol.

The usual dosage of Neobon Liquid is 5 ml. twice daily before meals or as required. It is supplied in bottles of 16 fl. oz., and is also available as soft gelatin soluble capsules in bottles of 60.

Pediatric Piptal

. . . is a combination of (N-ethyl-3-piperidyl-benzilate methobromide), 4 mg.; and phenobarbital, 6 mg. It is indicated in the treatment of colic in infants and is administered in drops fifteen minutes before feeding on a demand schedule. Pediatric Piptal helps relieve gastrointestinal disorders in the infant. It provides relief in 24-48 hours with reduction in the number of feedings, crying episodes, spitting, vomiting and other symptoms.

Reserpine with Mebaral

. . . is a sedative, tranquilizer, and antihypertensive combination available from Winthrop Laboratories. Each tablet contains reserpine 0.15 mg. and Mebaral (mephobarbital) 30 mg. The tablets are available in bottles of 100.

Reserpine with Mebaral produces immediate and sustained tranquillity through two sites of central nervous system action—cortical and hypothalamic—permitting more effective management of anxiety and tension states. Neuromuscular tension is alleviated so that patients frequently sleep better without recourse to potent hypnotic agents. Psychotherapeutic approach to basic emotional difficulties is facilitated. In benign essential hypertension, control of emotional lability as well as gentle, sustained antipressor action is obtained quickly. Blood pressure alterations in persons with normal pressure are rarely significant.

Reserpine with Mebaral is used for the management of anxiety and tension states, premenstrual tension, menopausal syndrome as well as for essential hypertension, angina pectoris and other disorders where an immediate and sustained tranquilizing effect is desirable. The usual dose is one tablet three times daily Initially, some patients may require somewhat larger doses.

Ritalin

. . . a psychomotor stimulant which restores mental and physical activities to normal levels without producing hyperexcitability or depressive rebound, is marketed by Ciba Pharmaceutical Products, Inc.

Ritalin induces alertness, a brighter mental outlook, and improved psychomotor performance. It lacks the usual side effects of other stimulants, and its action has been classified as somewhere between amphetamine and caffeine. Except in rare instances, this drug causes no hyperexcitability, no exaggerated sense of well-being, no elevation of blood pressure, no tachycardia, no inhibition of appetite, and no depressive rebound.

Ritalin is recommended for depression and chronic fatigue, drug-induced oversedation, disturbed senile behavior, and narcolepsy.

Ritalin is administered orally in divided doses, the dosage depending upon indication and individual response. The average dosage is 10 mg. two or three times daily. The effects of Ritalin may not be immediately apparent, suggesting that it may take time to build up to an adequate therapeutic level. Therapy, therefore, should be continued for a week or two for proper evaluation.

Side effects from this drug have usually been minimal. It is contraindicated in cases of agitated depression. However, patients in this state have done very well on a combination of Serpasil (reserpine) and Ritalin since optimal doses of both drugs can be given with fewer side effects.

Ritalin is supplied as 5 mg. (yellow), 10 mg. (blue), and 20 mg. (peach-colored) tablets.

Steclin

. . . (tetracyline, Squibb) is now available in a sweetened, unflavored suspension form, Steclin syrup. This product is intended particularly for administration to children. However, it may be given to anyone who has difficulty in taking capsules or tablets of tetracycline. Steclin syrup is useful in the oral treatment of many bacterial infections as well as diseases caused by certain large viruses, rickettsiae and protozoa. Because of its broad antibacterial spectrum, it is especially useful in the treatment of mixed infections. The preparation is supplied in two ounce bottles. Its 18-month out-date provides stability for that period at normal room temperatures.

BOOK REVIEWS

FINANCING HOSPITAL CARE IN THE UNITED STATES, 3 volumes, 1955. Volume 1: *Factors Affecting the Costs of Hospital Care,* edited by John H. Hayes. Pp. xvii † 300. Volume 2: *Prepayment and the Community,* edited by Harry Becker. Pp. xix † 356. Volume 3: *Financing Hospital Care for Nonwage and Low-Income Groups,* edited by Harry Becker. Pp. xviii † 110. Published by the Blakiston Company, New York and Toronto, and the McGraw-Hill Book Company, New York, Toronto, London. Price: Three Volumes $9.85.

For the last few years a growing mass of information has been accumulating on medical and hospital care in the United States. Three of the more recent sources have been Serbein's study, *Paying for Medical Care in the United States* which appeared in 1953, the *Report of the North Carolina Hospital Study Committee* which came out in 1953, and the voluminous reports of the hearings of the Committee on Interstate and Foreign Commerce published in 1954. The publication of *Financing Hospital Care in the United States* last year makes available additional valuable data for those interested in systems of medical prepayment and costs of hospital and medical services.

Toward the end of 1951, the American Hospital Association, with the support of several non-governmental organizations, sponsored the creation of the Commission on Financing of Hospital Care. This Commission, consisting of an imposing panel of thirty-four prominent individuals headed by Gordon Gray, former president of the University of North Carolina, onetime Secretary of the Army, and now Assistant Secretary of Defense, received $556,000 from private foundations to finance its work.

The two chief objectives of the Commission were to ascertain precisely how much it cost to provide adequate hospital services, and to determine how the people of this country could best pay for such services. By the end of 1953, the Commission had gathered sufficient data upon which to base its recommendations, and in 1955 the findings and recommendations were published in three volumes.

It was inevitable that many of these recommendations would plunge the Commission into an area of controversy. Proponents of various systems of medical prepayment in the United States range from the staid advocates of the American Medical Association to the enthusiastic partisans of the medical care now in vogue in Great Britain, Sweden and other European countries. It is interesting to note that two of the Commission's members representing the Congress of Industrial Organizations and the American Federation of Labor were in vigorous disagreement with some of the major approaches and findings of the report.

The first volume of this study comprises an exhaustive analysis of the various factors which affect the cost of hospital care. Beginning with a discussion of the dynamic and ever-changing role of the modern hospital, the report contrasts the conditions prevailing in early American hospitals with those of today. A wealth of statistical and economic material is introduced to show the growth of hospital services, types of hospitals, factors influencing operational costs and hospital income from various sources including prepayment. There are chapters that deal with capital investments in hospital facilities and their relation to total costs of hospital service, the significance of hospital deficits, factors influencing variation in cost of hospital care, the control and utilization of personnel, rate making, and other related topics. The nineteen recommendations at the end of this volume are intended to show how hospitals could reduce operational costs and at the same time receive an increased income. Among these recommendations are suggestions for the expansion of prepayment coverage to include out-patient benefits; improved techniques of hospital administration including auditing and budgeting; careful outlay of capital expenditures to avoid overbuilding with resulting improper utilization of bed capacity and diagnostic facilities; the encouragement of philanthropy; and a number of other sound suggestions.

In the last three decades, the spectacular growth of various prepayment plans sponsored by independent organizations, the Blue Cross, and commercial insurance companies, have gone a long way toward resolving the economic dilemma for both the patient and the hospital. There were approximately 91 million people in the United States in 1953 with some type of pre-paid hospital protection. This trend was accelerated in recent years by the rise of personal income and through payments of all or part of the premiums made by many employers. The second volume of the report deals in a comprehensive manner with the question of prepayment and the community. The origin and development of voluntary prepayment plans in the United States are traced. Detailed statistical and actuarial information is given on the extent of population coverage under voluntary health insurance, including nonwage and low-income groups. The question of benefit provisions in current prepayment plans are discussed and the report points out that there is a tremendous disparity and variation in benefits in existing voluntary insurance plans. According to this study. "An over-all view of existing benefits gaps reveals a patchwork of benefit provisions. Each of the more than 500 prepayment agencies providing prepaid hospital protection has developed different provisions and different benefit patterns . . . In many instances benefit provisions have been developed for reasons of expediency rather than as a result of careful evaluation of benefits needed for protection." Chapter Ten grapples with the problem of filling the gaps in prepayment and coverage under a voluntary system. The concluding thesis of the second volume is that voluntary prepayment on the community level is a dynamic and completely valid system of health insurance which can be developed even further in this country. Many of the recommendations of the Commission urge further study of existing plans to make them more comprehensive and to extend them to uncovered segments of the population.

The important problem of financing hospital care for nonwage and low-income groups is discussed in the third volume. The report correctly points out that "An orderly plan for financing hospital care for the non-

wage and low-income groups cannot be postponed without jeopardy to the financial structure of the voluntary hospital."

Of great interest are the two dissenting statements alluded to above which were submitted by Commission members S. H. Rutenberg, Director of Research, Congress of Industrial Organizations, and Boris Shishkin, Director of Research, American Federation of Labor. Mr. Rutenberg felt that despite the Commission's recommendations, the "cost of belonging to voluntary prepayment plans would continue to be too high for a large segment of the population including many who are gainfully employed." Firm opposition was also expressed by Mr. Rutenberg against the investigation of income of medically indigent and those receiving benefits under old-age and survivors insurance. "A constructive program," he pointed out, "should be based on receipt of necessary hospital care as a matter of right, without examination of means . . . " This sentiment is shared by Mr. Shishkin, who has a number of other objections to the report. He states that the study puts too much emphasis on local community responsibility and that the report had ignored "the possibility of placing the health insurance upon a comprehensive national base." Furthermore, Shishkin points out that the report omitted to mention the experience of Western European countries and two Canadian provinces with comprehensive social coverage; and that the Commission's findings had not considered "the essential principle of social insurance whereby compulsory coverage assures protection to all at a low cost without a means test."

This reviewer was particularly interested in noting the pharmaceutical provisions of Blue Cross plans tabulated in Volume Two (pp. 148-150 and 208-210). In 1953, 88 percent of the existing Blue Cross plans gave complete drug coverage, with the remaining twelve percent giving only partial protection against the cost of drugs in the hospital. The current *Professional and Administrative Audit of Pharmaceutical Service in Hospitals* now being made by the American Pharmaceutical Association under a grant from the United State Public Health Service should illuminate a vital area of hospital service which has heretofore been only very superficially treated in previous major hospital surveys.

ALEX BERMAN

TEXTBOOK OF ORGANIC MEDICAL AND PHARMACEUTICAL CHEMISTRY, Third Edition 1956. Edited by Charles O. Wilson, Ph.D. and Ole Gisvold, Ph.D. Published by J. B. Lippincott Co., Philadelphia, Pa. 10¼" x 7½", 822 pages. Price $11.00.

The subject matter in books on medicinal and pharmaceutical chemistry is usually presented according to chemical classification of compounds. In the Textbook of Organic Medicinal and Pharmaceutical Chemistry the subject matter is arranged according to three general classifications: (a) chemical; (b) pharmacologic; and (c) a combination of both chemical and pharmacologic. The text has been written primarily for the student at the undergraduate level.

In the introduction the authors state, "The material presented here should provide a basis for a more detailed study of the scientific literature. It is hoped that the student will make use of some of the references for this purpose." However, it is unfortunate that the numerous references listed at the end of each chapter do not include the title of the articles. This presents somewhat of a problem to the person who wishes to pursue the bibliography for additional information. To have a long list of such incomplete references is almost as frustrating to the student wishing to pursue a specific area of the subject as trying to look up the phone number of a person whose name is not listed in the telephone directory.

The second and third chapters present a moderate review of the physicochemical properties in relation to biologic action and metabolic changes (detoxification) of drugs and related organic compounds in the body. The next eleven chapters (4-14) describe organic medicinal substances according to chemical classification, i.e. hydrocarbons, alcohols, ethers, aldehydes, ketones, carboxylic acids and their salts and esters, nitrogenous substances, quaternary ammonium compounds, heterocyclics, and phenols. Chapters 15 through 22 present other organic pharmaceutical compounds according to chemical grouping and related pharmacologic activity, i.e. amines exhibiting sympathomimetic, adrenergic, parasympathomimetic, parasympatholytic, antimalarial, anesthetic, and analgesic activity. The subsequent seven chapters (23-29) revert back to chemical classification describing sulfur and phosphorus compounds, surface active agents, metallic compounds, dyes, steroids, carbohydrates, and glycosides. Chapters 30 through 33 include antibiotics, vitamins, proteins, and diagnostic agents. The concluding chapter delineates terpenes and related compounds.

The chemical data provided in each of the chapters is considerably limited. The book provides limited data to the practicing pharmacist faced with compounding, manufacturing, or product formulation problems. Likewise, the pharmacist seeking pharmacologic information will find only limited data which might be of interest to himself or to the physician.

Any book such as the Textbook of Organic Medicinal and Pharmaceutical Chemistry which, in one volume, includes nearly all the important chemicals possessing medicinal properties must, of necessity, be limited in scope. The book, however, provides sufficient information to orient the undergraduate student with general basic data on most of the important medicinal agents used in medical practice today.

CLIFTON J. LATIOLAIS

YEAR BOOK OF DRUG THERAPY, 1955-1956 series. Edited by Harry Beckman, M.D. Published by Year Book Publishers, Inc., Chicago, Ill. 8" x 5½", 560 pages. Price $6.00

The Year Book of Drug Therapy is one of 13 Practical Medicine Year Books published annually, and contains abstracts of articles published in various professional journals between August 1954 and August 1955.

New developments in the field of drug therapy are abstracted under such headings as: Allergy; Antibiotics and Sulfonamides; Cardiovascular Diseases; Dermatology; etc. New uses of known drugs, occasional reports on drugs not yet commercially available, and specific therapy with familiar drugs are some of the types of information in this book.

For current, concise abstracts of drug therapy, the annual Year Book of Drug Therapy is well worth the investment.

JOANNE BRANSON

National Pharmacy Week - 1956

The American Pharmaceutical Association has announced plans for the observance of National Pharmacy Week which is scheduled this year during the week of October 7-13. The theme again proclaims to the public the vital message that "Your Pharmacist Works for Better Community Health."

Members of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS are urged to participate in the Display Contest sponsored by the A.Ph.A. A mailing, giving additional information about National Pharmacy Week, will be sent to members of the SOCIETY and the rules for participating in the display contest are outlined below. Accompanying the mailing will be a participation order form listing more than twenty publicity aids for use by individual pharmacists and pharmaceutical associations.

The publicity aids include public addresses, radio and television scripts and spot announcements, newspaper editorials, an advertising mat and suggested proclamations for use by governors and mayors. This material is available from A.Ph.A. headquarters at a nominal charge.

A Kit consisting of six addresses, six radio and television materials, three suggested proclamations for use by governors and mayors, four newspaper editorials, and a list of suggestions for window displays may be obtained at a cost of $1.00. A two-column (4″ by 4″) advertising mat for use in local newspapers is available at a price of 30c. A number of other items are also listed on the official participation order form and may be ordered if desired.

This year's publicity aids for use by pharmacists include a number of new items. Among these new items are two addresses—"Pharmacy—An Exacting Profession" and "The Evolution of the Drug Store." Other new materials include radio spot announcements, newspaper editorials and an ad mat.

RULES FOR 1956 NATIONAL PHARMACY WEEK DISPLAY CONTEST

General Rules

1. Competition is limited to members of the American Pharmaceutical Association. In instances where a photograph is entered in the name of a retail pharmacy rather than by an individual, a member of the American Pharmaceutical Association must be associated with the firm, either as an owner or as an employee, and must have had a part in the planning of the display.

2. Each display must exhibit the window strip entitled "National Pharmacy Week, October 7-13, 1956," which the American Pharmaceutical Association will supply.

3. Displays will be judged on the basis of:
   a. Value and effectiveness of the message to the public
   b. Originality
   c. Professional character, arrangement, and details
   d. Conformity to theme

4. Displays must be entirely professional in their concept. Any emphasis on commercial implications must be avoided.

5. Photographs submitted must be 8 by 10-inch glossy prints.

6. Pharmacy Week displays that have been entered in former years are ineligible.

Rules for Retail Pharmacies

1. General Rules 1 to 6 inclusive apply to this competition, which is limited to displays in retail pharmacies.

2. Photographs of displays must be submitted to the secretaries of the respective state pharmaceutical associations on or before November 15, 1956, labeled on the back as entries in the Retail Pharmacy Competition.

3. Each state pharmaceutical association should appoint a judging committee before November 15, 1956, to select the best display within the state. (Some states have provided a state prize for the best display and then entered the winner of this contest as their representative in the national competition.) A photograph of that display shall be mailed to the American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington 7, D. C., not later than December 15, 1956. Entries mailed after that date will not be accepted in the national competition.

4. Only the winner from each state may be entered in the national competition. Each state winner will receive an appropriate certificate from the American Pharmaceutical Association.

5. As soon as possible after December 15, 1956, a national committee of judges will select the best six displays from the states. The winning displays will be awarded the following:

First Prize—$200 and plaque or other trophy
Second Prize—$100 and plaque or other trophy
Third Prize—$50 and plaque or other trophy
Fourth, Fifth, and Sixth Prizes—Certificates of Merit

Rules for Public Exhibits, Colleges, and Hospitals

The same General Rules as outlined above apply to the display competition in the public exhibit, college, and hospital categories of competition. However, the specific rules vary somewhat in that photographs of entries in these three classifications should be mailed directly to the A.Ph.A. Committee on Public Relations, 2215 Constitution Avenue, N.W., Washington 7, D. C. Three winners will be selected in each of these classifications; first prizes will consist of plaques and second and third prize winners will receive certificates of merit.

CURRENT LITERATURE

edited by SISTER MARY ETHELDREDA, *St. Mary's Hospital, Brooklyn, N.Y.*

American Professional Pharmacist

HOSPITAL PHARMACY FORUM: Two New Methods That Simplify Pharmacy Service to Patient Units, *Am. Profess. Pharmacist 22*:438 (May) 1956.

Description of distribution and charge systems for drugs as used at the Indiana Medical Center Hospital, Indianapolis, Ind. and at Bronson Methodist Hospital, Kalamazoo, Mich.

HOSPITAL PHARMACY FORUM: Extending Pharmacy Services in Smaller Hospitals, *Am. Profess. Pharmacist 22*:540 (June) 1956.

Discusses opportunities for relationships between community pharmacists and smaller hospitals presently without pharmacists. Also includes summary of report of Hospital Committee of the American College of Apothecaries outlining factors considered "musts" to insure that a part-time service plan for smaller hospitals is successful.

HOSPITAL PHARMACY FORUM: How One Independent Pharmacy Serves A Small Hospital, *Am. Profess. Pharmacist 22*:543 (June) 1956.

Describes the financial arrangement of one pharmacy which is supplying prescription service to a 55-bed hospital.

PIKE, MAXWELL: Mouthwash Concentrate, *Am. Profess. Pharmacist 22*:543 (June) 1956.

A suggested formula for a mouthwash concentrate recommended for use when the pharmacy is faced with supplying large quantities of mouthwash for patient care.

Hospital Management

KAUFMAN, PAUL C. AND REUELL, CHARLES H.: Say Farewell to Missing Pharmacy Charges, *Hosp. Management 81*:102 (June) 1956.

Describes a system for channeling all types of drug charges through the Pharmacy Department. Offering a permanent record, this plan obviates the many problems arising as the result of missing drug charges.

FLACK, HERBERT L. AND ASSOCIATES: Equipment and Supply Sources for the Hospital Pharmacist, *Hosp. Management 82*:84 (July) 1956.

Describes booklet listing sources of equipment and supplies used principally in bulk compounding or manufacturing in a hospital pharmacy. Particularly helpful to hospital pharmacists starting a bulk compounding program. Copies of the booklet are available from the author at one dollar each. Send requests to Herbert L. Flack, Director, Pharmacy Service, Jefferson Medical College Hospital, Philadelphia, Pa.

Hospitals, J.A.H.A.

WHITCOMB, WILLIAM: How to Take Notes—and Use Them, *Hospitals 30*:36 (June 1) 1956.

Prepared by a hospital pharmacist, the techniques described pertain to hospital pharmacy meetings. Suggestions include use of a diagram, a chart, key words, and the importance of expanding notes as soon as possible. An actual example is given showing how rough notes were expanded for presentation to the Pharmacy and Therapeutics Committee.

ANON.: In Conference, *Hospitals 30*:51 (June 1) 1956. Adapted from an article appearing in *Harvard Business Review* (Mar.) 1956.

Ten "rules of thumb" for setting up and directing committees with decision-making responsibilities. Of interest to those concerned with SOCIETY activities and leaders in affiliated chapters.

SKOLAUT, MILTON W. AND SALVINO, JOSEPH N.: How Do You Measure Needle Length? *Hospitals 30*:46 (July 1) 1956. Abstracted from *The Bulletin of ASHP 12*:460 (July-Aug.) 1955.

Illustrates simple devices convenient for measuring needles.

The Hospital Pharmacist (Canada)

PLEIN, ELMER M.: Responsibilities of the Hospital Pharmacist in Hospital Organization, Part I, *Hosp. Pharm. (Canada) 9*:79 (Mar.-Apr.) 1956.

An outline of basic principles of hospital pharmacy organization along with background on historical development in this field.

CLARKE, BETH: The Small Hospital and Its Pharmacy, *Hosp. Pharm. (Canada) 9*:83 (Mar.-Apr.) 1956.

St. Joseph's Hospital, Brantford, Ontario, is a new 100 bed hospital. Included here is the floor plan and photographs of the Dispensing Area and the Manufacturing Area.

ZAHALAN, FRANK: The New Look—New Montreal General Hospital's Pharmacy Provides Space for Diverse Operations, *Hosp. Pharm. (Canada) 9*:82 (Mar.-Apr.) 1956.

Describes a pharmacy which occupies approximately 5,000 sq. ft. Includes outpatient dispensing area, compounding and dispensing area, bulk manufacturing department, powder mixing and ointment tube filling section, bottle washing room, storage areas, parenteral solutions room, litre solutions area, inflammables vault, narcotics vault, walk-in refrigerator, chief pharmacist's office and library, and various waiting rooms.

STAUFFER, ISABEL: Staffing Pattern for a Hospital Pharmacy, *Hosp. Pharm. (Canada) 9*:139 (May-June) 1956.

Covers factors to be considered in setting up a staffing pattern in a hospital pharmacy, factors which govern the selection of personnel, and problems and trends in staffing hospital pharmacies today.

WHITCOMB, WILLIAM: Drug Problems Conference, *Hosp. Pharm. (Canada) 9*:151 (May-June) 1956.

Report on a conference with heads of departments, supervisors and others concerned with dispensing drugs in hospital. The purpose of the conference was to discuss problems dealing with all aspects of ordering, dispensing and administering medications.

PLEIN, ELMER, M.: Responsibilities of the Hospital Pharmacist in Hospital Organization, Part II, *Hosp. Pharm. (Canada) 9*:160 (May-June) 1956.

A continuation of an outline of basic principles of hospital pharmacy organization covering manufacturing and control, research, ward stock, central supply, economics and pricing, legal responsibilities, literature file, teaching duties and organizing.

ASHP affiliates

Illinois Society

Members of the Illinois Society of Hospital Pharmacists met in conjunction with the Illinois Branch of the American Pharmaceutical Association on May 15. This was a dinner meeting and officers of both organizations for the coming year were installed.

The program included an interesting presentation on "Human Relations", by Mr. Glenn Fouche, Vice-President of *Parade Magazine*.

New officers of the Illinois Chapter are President Morris Gordon, Vice-President Lewis A. Cooke, Secretary-Treasurer Edward A. Hartshorn.

New Jersey Society

Members of the New Jersey Society of Hospital Pharmacists met at the Perth Amboy General Hospital in Passaic on April 19. Much interest was shown in the report of the Special Committee on Pharmacists in Small Hospitals which is working toward having a pharmacist in charge in all hospitals of 50 beds and over.

Also included along with the reports was detailed information regarding actions taken at the Detroit Annual Meeting. This was presented by Miss Marjorie O'Boyle, a delegate from the New Jersey Society. Note was also made of the fact that Mr. Larry Pesa, a Past-President of the New Jersey Society, is one of the nominees for the Vice-Presidency of the ASHP.

The May meeting of the New Jersey Society was held on Saturday, the 26th, at the Hunterdon Medical Center in Flemington. A tour of the hospital was conducted by the ladies auxiliary of Flemington and included a visit to the pharmacy. The meeting was highlighted by an address on "Effective Communications," by Mr. Peter Reynolds, Assistant Director of Sales Training for the Pfizer Laboratories. The hostess for the meeting was Miss Marjorie O'Boyle, Chief Pharmacist at the Medical Center.

Louisiana Society

The March 22 meeting of the Louisiana Society of Hospital Pharmacists was held at the Foundation Hospital in New Orleans. Dr. Robert Swink gave an interesting oration accompanied by a colorful film on "The Separation of Siamese Twins," which was performed at the Foundation Hospital in 1953. Included also on the program was a discussion on "Radioisotopes and Their Relationship to Pharmacy," by Mr. John Hidalgo, physicist at Tulane University.

Rhode Island Society

Members of the Rhode Island Society of Hospital Pharmacists sponsored a dinner and dance on April 12 to raise money in connection with sending a delegate to the Annual Meeting of the national organization.

At a business meeting of the Rhode Island Society on May 17, the group voted a contribution to the A.Ph.A. Building Fund.

Oklahoma Society

Mr. David Stiles, Director of Market Development, Abbott Laboratories, Chicago, was the principal speaker at the annual luncheon of the Oklahoma Society of Hospital Pharmacists. This was held in conjunction with the convention of the Oklahoma State Pharmaceutical Convention meeting in Tulsa on May 9. Mr. Stiles discussed changes in the problems of pharmacy in recent years and factors which have contributed to the prescription dollar market. In a recent survey, he pointed out, that Achromycin, Thorazine, Chloromycetin, dextrose solutions, and psycho-sedative drugs make up the largest percentage of pharmaceuticals being used. Mr. Stiles also discussed prescription sales, and the market studies of 1940, 1950, and 1955.

The meeting was presided over by Sister M. Teresa, President of the Oklahoma Society.

Western New York Chapter

The Western New York Chapter of the ASHP met at the Markeen Hotel for a dinner meeting sponsored by Lederle Laboratories on May 9. During the business session, the work of the national organization was discussed and a draft of a letter prepared by Mr. Melvin Monteith and his committee was read. This is to be forwarded to the president of the ASHP, Mr. Paul Parker.

Following the business session, a film made available by Lederle Laboratories was shown.

Southern California Society

Dr. Edward Wright, Chief of Dermatology, Veterans Administration Center, Los Angeles, was the principal speaker for the April meeting of the Southern California Society of Hospital Pharmacists. His topic was "Modern Dermatologicals." The group also heard Dr. Charles Bayer, Director of the Medical Center who was introduced by Mr. Charles Towne, Chief of Pharmacy Service at the Center where the meeting was held.

Reports on the Detroit Annual Meeting were presented by Miss Marie Tilley and Miss Emily Alekna.

Western Pennsylvania Society

Members of the Western Pennsylvania Society of Hospital Pharmacists were guests of Pfizer Labor-

New President of the Western Pennsylvania Society. To the left is Mr. Italo Bianculli being congratulated by outgoing President Joseph Oddis. Members of the Society look on.

atories at a banquet on Thursday May 17, held at the Hotel Websterhall. Mr. Leo Godley, Chief Pharmacist at Bronson Methodist Hospital in Kalamazoo, Michigan, was the guest speaker. His topic was "System of Drug Charging."

Akron Area Society

Twenty-three members of the Akron Area Society of Hospital Pharmacists were present for the April 17 meeting which was held at Citizens Hospital in Barbarton, Ohio. The meeting was presided over by the President, Mrs. Jean Sickafoose. Reports of recent meetings included one on the Pharmacy Institute held at Ohio State University by Mrs. Irene Knepp, one on the convention of the Ohio Society of Hospital Pharmacists, by Mr. Leon Bailey, and a report on the Detroit Convention, by Jack Smittle.

Final plans were also made for the student project which is to be carried out in May and it was noted that a local newspaper is going to present a picture story on the project. This is in charge of Mr. Russell Lovell.

New officers of the Akron Area Society were elected for the coming year including President Jack Smittle, Vice-President Eugene Hovis, Secretary Hildah Douglas, and Treasurer Ann Davis Coleman.

During the business session, the Akron Area Society voted to make a contribution to the A.Ph.A. Building Fund.

The program included a paper on "Inter-departmental Relationships," by Mr. Charles Lovelady. This was followed by a general discussion of the subject.

Houston Area Society

A panel discussion on the "Pros and Cons of a Hospital Formulary System," was held at the March 21 meeting of the Houston Area Society of Hospital Pharmacists. Mr. Robert Lantos, Chief Pharmacist at the John Sealey Hospital in Galveston, acted as moderator.

The meeting was held at the John Sealey Hospital in Galveston with President Paul Wilburn presiding.

Arizona Society

Members of the Arizona Society of Hospital Pharmacists met at the Rose Room of the Westward Ho Hotel in Phoenix for the May meeting. New officers were installed and detailed plans for the coming year were considered. Mr. Reed Ames and Mrs. Kimberlin reported on the Annual Meeting of the ASHP.

Southeastern Florida Society

Members of the Southeastern Florida Society of Hospital Pharmacists met at Jackson Memorial Hospital in Miami on May 24. Five hospitals were represented and a survey of hospital prices, prepared by Mr. Carl Dell, Chief Pharmacist at Jackson Memorial Hospital, was presented to the group and reviewed. Misuse of insurance to pay for discharge drugs was discussed and several hospitals pointed out that only one week's supply was given to patients on leaving the hospital.

The new regulations for stop-dates on dangerous drugs as set up by the Joint Commission on Accreditation of Hospitals were discussed and it was noted that one hospital puts the stop-date on the label or container of each of the items as it is sent to the patients.

Plans were made for the June meeting to be held in conjunction with the A.Ph.A. branch.

Hospital Pharmacists of Greater Kansas City

Members of the Hospital Pharmacists' Association of Greater Kansas City met at the Veterans Hospital on May 8. The meeting was presided over by Mr. Charles Loomis. Considerable discussion was concerned with the group's participation in the pharmacy section meetings of the Midwest Hospital Association and the papers presented at the April convention. Plans were made to immediately investigate arrangements for future participation in the meetings.

Under new business, Mr. Loomis appointed a Civil Defense Committee to work with the local people concerned with civil defense. Members of the Committee included Mr. R. Fritts, *Chairman;* Mr. J. Cygiel; Mrs. Mary L. Griffith; and Sister Mary Andrew.

Philadelphia Hospital Pharmacists' Association

The April 17 meeting of the Philadelphia Hospital Pharmacists' Association was held at the Nazareth Hospital with Sister M. Gentilla, Chief Pharmacist, and Sister M. Cordia, Associate Pharmacist, as hostesses. Preceding the meeting, those in attendance toured the hospital, including the Chapel, the Nursery, the Pharmacy, and other places of interest. Everyone noted with interest the many innovations and the exceeding cleanliness and and orderliness which prevailed throughout the hospital. Of particular note was the colorful and well planned Pharmacy Department.

President Ketcham welcomed the approximately fifty members and guests who were in attendance. He also introduced Mr. William Tester, Director of Pharmacy Service at the

University of Iowa Hospitals, Iowa City, Iowa, who was visiting hospitals in the east.

During the business session, Mr. Benjamin Wexlar reported on the Annual Meeting of the ASHP which was held in Detroit. Other members of the Philadelphia Hospital Pharmacists' Association attending the Convention included Mr. Ugo Caruso, Herbert Flack, Basil Ketcham and Robert Simons.

Included on the program was a panel discussion of "A Delivery Service for the Hospital Pharmacy," which was moderated by Herbert Flack. Other participants included Marie Kavanagh, Misicordia Hospital; Marilyn Smith, St. Joseph's Hospital; Joseph D'Ambola, Hahnemann Medical College Hospital; Joseph Desiderio; Jefferson Medical College Hospital, Thomas Manzelli, Lankenau Hospital, Albert Miteli, Cooper Hospital, and William Tester.

Midwest Association of Sister Pharmacists

The regular meeting of the Midwest Association of Sister Pharmacists was held at St. Mary of Nazareth Hospital on April 19. At 1:00 P.M. the group toured the new nurses home at St. Mary's and at 1:30 P.M. Dr. L. H. Lassiter, Instructor in Ophthalmology at University of Illinois, gave an informative talk on the preparation of ophthalmic solutions. He stressed especially the importance of sterility and *p*H. After his talk Sister Mary John, O.S.F., presented a paper on the action of anti-hypertension drugs, pointing out the different sites of action.

Sister Mary Tarcisia, O.S.F. then presented background on the history of the Midwest Association and asked for suggestions from the members in regard to its presentation.

Northern California Society

Mr. Robert B. Price spoke on "What the Hospital Pharmacist Should Know About Health and Accident Insurance," at the May 8 meeting of the Northern California Society of Hospital Pharmacists.

Following the speaker, reports on the Annual Meeting were presented by Mrs. Marie Kuck and Miss Clara Henry.

Mr. Charles Bertrand announced plans for the program for the two-day seminar which is scheduled for October.

The Northern California Society held a joint meeting with the Northern California Branch of the A.Ph.A. on June 12. The meeting was held at the University of California Medical Center in San Francisco with Dr. Peter Florshem speaking on "Newer Hormones and Their Uses."

New members of the Northern California Society introduced at recent meetings include Mary Katherine Flint, Peralta Hospital, Oakland; Frank K. Edminster, Isidor Harband, Ichiro Arimoto, and Alfred Holmes, all of San Francisco City and County Hospital, San Francisco.

Northeastern New York Society

Members of the Northeastern New York Society of Hospital Pharmacists attended a dinner and lecture sponsored by Chas. Pfizer and Co. at the Sheraton-Ten Eyck Hotel in Albany on Thursday, May 3. The guest speaker was Lt. Thomas A. Dooley, III., M.C. USNR, who lectured on "Passage To Freedom," which is the story of the evacuation of 750,000 Vietnamese. Lt. Dooley, the Navy's only medical officer stationed in Haiphong, North Vietnam, participated in the evacuation of free Vietnamese from the Communist-controlled Northern Sector of Indonesia. He was awarded the Legion of Merit by the Navy for his services as medical officer in charge of refugee camps on the west coast of North Vietnam after the truce had ended the civil war in that country. He is the author of a book which was condensed in the April issue of *Reader's Digest*.

A group of fifty hospital pharmacists, including some of their guests, formed part of the 550 attendance of doctors and pharmacists at this meeting.

Minnesota Society

New officers elected at the April 30 meeting of the Minnesota Society of Hospital Pharmacists include President, Miss Mary Sullivan, Miller Hospital, St. Paul; Vice-President, Mrs. Mary Anna Anderson, St. Johns Hospital, St. Paul; and Secretary-Treasurer, Mrs. Marion Wright, St. Joseph's Hospital, St. Paul.

Washington State Hospital Pharmacists

Mr. Harold Eastvold, Assistant Attorney General of the state of Washington, was the principal speaker at the June 12 meeting of the Washington State Hospital Pharmacists. Another highlight of the meeting was the installation of officers for the 1956-1957 term. Miss Roberta Dodds, Swedish Hospital, Seattle was installed as President. Other officers include Vice President Earl Hjort, Ballard General Hospital, Seattle; Secretary Mrs.

Photograph taken at Joint Meeting of the Northeastern New York Society of Hospital Pharmacists and the Medical Representatives Society of the Capitol District. Mr. Benjamin Teplitsky (left), President of the hospital pharmacists group, shakes hands with Mr. William Shepherd, (right), President of the Medical Representatives Society. Standing in the Center is the guest speaker, Mr. Irving Rubin, Managing Editor on Pharmacy of the American Druggist.

Shirley Cochran, Renton Hospital, Renton, Wash.; and Treasurer James Button, Virginia Mason Hospital, Seattle.

The meeting was preceded by a dinner sponsored by the Pfizer Laboratories.

The Washington State Hospital Pharmacists' organization has submitted an invitation to hold one of the national institutes in Seattle in the near future. The invitation has been submitted to the American Hospital Association, the A.Ph.A. and the ASHP, and will be considered by these groups when planning for future institutes.

Greater New York Chapter

Members of the Greater New York Chapter of the ASHP met at St. Joseph's Hospital, Far Rockaway, Long Island, on May 29 at 2:30 P.M. The principal speaker, Dr. Robert A. Berman, Chief Anesthesiologist at the St. Joseph's Hospital, presented an interesting discussion covering current agents used in anesthesia. He discussed, in detail, the advantages and disadvantages of each agent, hazards encountered, etc.

Maryland Association of Hospital Pharmacists

Members of the Maryland Association of Hospital Pharmacists met at the Clinical Center of the National Institutes of Health, Bethesda, Maryland, on May 4, 1956. The principal speaker was Dr. Joseph B. Sprowls, Dean of the School of Pharmacy of Temple University, Philadelphia. He spoke on "Applications of Some Basic Concepts of Pharmacy."

Tennessee Society

The Tennessee Society of Hospital Pharmacists held a two-day Institute at the Vanderbilt University Hospital in Nashville on May 26 and 27. Mr. Ralph Stone, Chief Pharmacist at Vanderbilt University Hospital, was in charge of the program and arrangements. The Institute was sponsored in cooperation with the Tennessee Hospital Association.

Among the papers included on the program were the following:
"Nutrition and Its Effect on the Pregnant Patient," by William J. McGanity, M.D.
"Present Status of Antibiotics Therapy," by J. Vernon Knight, M. D.
"Cinical Use of Parenteral fluids," by Charles Thorne, M. D.
"Purchasing for the Hospital Pharmacy," by W. D. Upchurch, Methodist Hospital, Memphis.
"Practical Records for the Hospital Pharmacy," by Joe R. Sykes, John Gaston Hospital, Memphis, and W. Howard Hassler, University of Tennessee School of Pharmacy, Memphis.
Panel Discussion—"Problems of Pharmacists in Small Hospitals," moderated by Violet Fucon, St. Thomas Hospital, Nashville.
Panel Discussion — "Relationships of the Hospital Pharmacists to the Retail Pharmacists," by Robert T. Walker, Secretary of the State Board of Pharmacy, Nashville.
"Relationships of the Hospital Pharmacists to Nursing Service," by Jane Baily, Associate Director of Nursing Service, St. Thomas Hospital, Nashville.
"The Future of Hospital Pharmacy," by Grover C. Bowles, Baptist Memorial Hospital, Memphis.

The dinner speaker was, Mr. Clinton Wade, Public Relations Director, Vanderbilt University.

The Tennessee Society of Hospital Pharmacists also held a meeting in conjunction with the Institute.

North Carolina Society

The North Carolina Society of Hospital Pharmacists met at the Manor Inn in Ashville on June 30. The President and Host, Mr. Andrew J. Darling, opened the meeting following a dinner provided through the courtesy of Wyeth Laboratories.

The program included a report on the A.Ph.A. Convention and the ASHP Annual Meeting which were held in Detroit in April. The report was presented by Mr. James Mitchner, Chief Pharmacist at Cabarras Memorial Hospital in Cabarras, North Carolina.

Iowa Society

The Iowa Society of Hospital Pharmacists held a dinner meeting on Sunday, June 3 at the Savery Hotel in Des Moines. The meeting was presided over by Mr. William Tester.

Following routine reports, consideration was given to membership activities and plans for future meetings. Dean L. C. Zopf of the College of Pharmacy at the State University of Iowa, offered the use of the facilities of the University in connection with meeting places, speakers, printing services, etc. Mr. William Tester reported in detail on the ASHP Annual Meeting which was held in Detroit in April. He emphasized the need for work in connection with membership, and also the fact that local chapters are urged to work on a specific project. The Iowa Society will be concerned with the opportunities for services to small hospitals from retail pharmacists.

In making plans for future meetings, it was decided to hold two seminars each year, one in Des Moines and one in Iowa City. These are to be held on Sundays, and tentatively, the one in Des Moines is to be in the Spring with the one in Iowa City in the Fall. Specific attention will be given to meeting sites for future local and district meetings so that all members will have an opportunity to participate.

Wisconsin Society

The last meeting of the Wisconsin Society of Hospital Pharmacists for the 1955-1956 year was held at the Milwaukee County General Hospital on May 18. Mr. William Benka, Chief Pharmacist, welcomed 20 members and 18 guests. The principal speaker, Dr. Burton A. Waisbern, Phvsician-in-Charge of the Infectious Disease Unit of Milwaukee County General Hospital, gave an excellent talk on current uses of antibiotics. In addition to covering the subject, Dr. Waisbern commented on the work of the Pharmacy and Therapeutics Committee, the use of generic names in hospitals, and the necessity for hospital pharmacists to be well informed regarding new drug developments.

Greater St. Louis Association

Members of the Hospital Pharmacists' Association of Greater St. Louis met at St. Mary's Hospital on Tuesday evening, June 12. Business included reports from the officers and committee members and a discussion of plans for future meetings. Also, Sister Mary Berenice, presented a report on the A. Ph.A. Convention and the ASHP Annual Meeting which were held in Detroit in April.

Action taken during the meeting provided for a pledge of $100 to the A.Ph.A. Building Fund.

as the president sees it

PAUL PARKER

American Pharmaceutical Association, Washington, D. C.

There are forty-five affiliated chapters of the SOCIETY and if we assumed that, on an average, each held six meetings a year, there would be 270 meetings each year—270 opportunities to learn of something which might be implemented in our own departments.

Officers and committees of the Chapters are now in the process of planning these programs. *How can our professional organizational programs best contribute to the improvement of hospital pharmacy practice?* A measure of progress in this endeavor might be the number of specific ideas which are implemented in hospital pharmacies to improve their service or procedures as a result of attending Chapter meetings. Obviously, the more such specific ideas are advanced, the more we are likely to see implemented. Further, the manner in which each idea is presented will significantly affect its chances of implementation.

Some specific requirements for the use of an idea are that it be conceived, analyzed, planned, perhaps preliminarily tested, implemented and evaluated. For example, you may learn of the use of a pharmacy bulletin for the professional staffs which is issued by the pharmacy department. You may decide the purpose of such a bulletin, what it is designed to accomplish, its distribution, layout and make-up, cost, etc. You may then plan an approach to convince the administrator why you should have one; its advantages, cost, and time necessary. Show the need and present the subject to the boss, preferably in writing. The actual implementation of the idea should be planned, timed and made receptive to those people in the hospital who will be affected by its implementation. The change or additional service should be evaluated in terms of the factors upon which it was originated. This may seem like the long road to do a simple job; however, the results from such a schedule will probably prove their worth. The Chapter program may not necessarily have all this data presented as such, but there should be sufficient stimulation and information to allow for the hospital pharmacist to obtain the information himself.

The programs of our regular meetings should be objective, informative and set in the proper atmosphere of friendliness and comfort to make the idea receptive. So frequently, program planning for our meetings results in anything but material for improving our professional practice. We often plan to get a crowd; think of entertaining them to compete with television, an evening with the family, or other forms of competition. We use elaborate dinners, cocktail parties, "name-brand" speakers (who may frequently have nothing to say or are little understood) and everything but the simple ingredient of a singular idea, clearly defined and evolved in such a manner that the hospital pharmacist will want to implement the idea in his department.

Of course, the listener also has an obligation to be on the lookout for information; to make ideas adaptable; to applying certain criteria to each idea and to be "restless" in his satisfaction with his own operation. So frequently we hear the expression "That's a wonderful idea for Joe's institution, but my hospital situation is different." Actually, they are often more alike than we suspect and fundamental ideas are adaptable to a variety of situations.

Hospital pharmacists are usually so alert for new ideas. It is very gratifying to attend meetings where specific ideas are presented, either as a part of the program or in conversation with the individuals present. It is even more gratifying to know of these ideas being instituted as a continuing part of the hospital pharmacy service in some hospital.

Surely there are other and perhaps more worthwhile programming methods which will help to improve the practice of hospital pharmacy, but this is one which may be classified "as the president sees it."

Paul F. Parker

NEWS

Dr. Scheele Leaves P.H.S.

Dr. Leonard A. Scheele has recently resigned as Surgeon General of the Public Health Service to accept the presidency of Warner-Chilcott Laboratories, the ethical drug division of Warner-Lambert Pharmaceutical Company. Dr. Scheele will assume his new duties about August 1.

Warner-Chilcott Laboratories, which manufacturers and distributes an extensive line of pharmaceutical specialties, has its headquarters in Morris Plains, N.J. Dr. Scheele, in addition to his responsibilities as Warner-Chilcott president, will also have an active interest in Warner-Lambert's world wide program of pharmaceutical research and development. Warner-Lambert has manufacturing laboratories in 22 countries, and distributes its products throughout the free world.

In announcing his new post, Dr. Scheele said: "After twenty-three years of Federal service in the health area, it is gratifying to me to be given an opportunity to continue my life work in a closely related and highly important activity. I find especially challenging the possibilities for effective service in the field of international medicine. During the last two decades, we have seen throughout th world great advances in the never-ending fight against disease, disability and pain. It has been my particular privilege, during the last eight years in which I have served as Surgeon General, to partcipate in many of the important programs of medical research and education which yielded such great results in this fight. I am looking forward to continuing these efforts in connection with my new responsibilities in private life."

A.A.A.S. To Meet in New York

The American Association for the Advancement of Science and participating affiliated and associated societies will meet in New York City, December 26 to 29. The Hospital Pharmacy Section is scheduled to meet in the Keystone Room of the Statler Hotel on Saturday, December 29. Dr. George F. Archambault, Secretary of the Hospital Pharmacy Subsection and the SOCIETY's representative on the A.A.A.S. Committee-at-Large, has issued an invitation for papers to be presented. Anyone wishing to submit a paper must present the title and a short abstract (100-200 words), and, if possible a copy of the manuscript *not later than September 7, 1956,* to Dr. George F. Archambault, Division of Hospitals, U. S. Public Health Service, Washington 25, D. C.

Hospital pharmacists are urged to actively participate in the Section on Pharmacy at the December meeting of the American Association for the Advancement of Science. Other organizations represented in the Section include the American Pharmaceutical Association, the American Association of Colleges of Pharmacy and the American College of Apothecaries. The tentative program for the Pharmacy Section is scheduled as follows:

1. Contributed Papers: December 26, 8:00 p.m.
2. Contributed Papers: December 27, 9:00 a.m.
3. A.A.A.S. Symposium: "Moving Frontiers of Science," December 27, 2:00 p.m.
4. Symposium: "The Significance of Cosmetics in Medical Practice," December 27, 8:00 p.m.
5. Symposium: "Compressed Coating Techniques and Equipment," December 28, 9:00 a.m.
6. A.A.A.S. Symposium: "Moving Frontiers of Science," December 28, 2:00 p.m.
7. Hospital Pharmacy—Contributed Papers: December 29, 9:00 a.m.
8. Symposium: "Anti-enzymes," December 29, 2:00 p.m.

Dr. John Christian, Purdue University School of Pharmacy, Lafayette Indiana, is Secretary of the Section on Pharmacy, and will be in charge of coordinating the total program for the Section.

New Pharmacy Dedicated

The Boston Alumni Club and Boston Ladies Auxiliary of the Rho Pi Phi, International Pharmaceutical Fraternity, dedicated the Pharmacy, which they furnished and equipped, at the Jewish Memorial Hospital in Roxbury, Massachusetts, on Sunday, May 27, 1956.

From left to right, Mr. Nathan Kansky, Chancellor Rho Pi Phi, Dr. A. Daniel Rubinstein, Director of Hospitals, Mr. David Stern, President Jewish Memorial Hospital, Dr. Edward Turner, Chief Pharmacist, Mr. Murray Fertel, Executive Director Jewish Memorial Hospital, Mr. George Friedman, Chairman of Rho Pi Phi Committee to furnish hospital pharmacy, and Mr. Lester Katzen, past Chancellor of Rho Pi Phi.

Leading figures in the fields of Pharmacy and Public Health were on hand to take part in the ceremonies. Dr. A. Daniel Rubinstein, Director of Hospitals, Department of Public Health, Commonwealth of Massachusetts, was the featured speaker. Also on hand to take part in the program were Mr. Wilfred Chagnon, president of the State Board of Pharmacy; Dean Constantine Meriano, New England College of Pharmacy; Mr. Harry Feldman, President, Boston Association of Retail Druggists; and Mr. David Blackstone, Supreme Master of Ceremonies, Rho Pi Phi.

Presentations in behalf of Rho Pi Phi were made by Mr. Nathan Kansky, Chancellor, and Mr. Lester Katzen, Past Chancellor. Receiving the presentations for the Jewish Memorial Hospital were Mr. David Stern, President; Mr. Murray Fertel, Executive Director; and Dr. Edward Turner, Chief Pharmacist.

Mr. George I. Freedman, Chief Pharmacist at the Veterans Administration Hospital, Bedford, Massachusetts, was Master of Ceremonies for the Dedication. Mr. Freedman was Chairman of the Rho Pi Phi Committee to furnish and equip the Pharmacy.

The Jewish Memorial Hospital, a non-sectarian institution for the treatment of chronic diseases, was recently enlarged to 120 beds. The new Pharmacy is approximately 15 x 15 and is furnished with the latest type of wall cabinets and stainless steel counter tops.

It was also announced at the Dedication that Rho Pi Phi had set up a fund which would be used for the constant maintenance of the pharmacy and also to repair and replace equipment.

Dr. Hugo Schaefer Retires

Dr. Hugo H. Schaefer, Dean of the Brooklyn College of Pharmacy, Long Island University, will retire on September 1, 1956 after having served 19 years in that capacity. Dr. Arthur George Zupko who is presently serving as Associate Dean, will assume the post of Dean at that time.

In recognition of Dr. Schaefer's many contributions to public health, Long Island University conferred on him an honorary degree of Doctor of Laws on June 8, 1956, at its annual commencement.

An eminent educator, scientist, and author, Dr. Schaefer is the 1951 recipient of the Remington Honor Medal, the highest award of American Pharmacy for outstanding achievement.

In addition to serving as an officer of numerous pharmaceutical associations, Dr. Schaefer also served as Vice-President and Treasurer of the American Pharmaceutical Association, Vice-Chairman of the National Formulary Committee, Secretary of the U. S. Pharmacopeial Revision Committee, Vice-President, American Institute History of Pharmacy, Chairman Emeritus, Executive Committee, N. Y. State Pharmaceutical Association, President of the American Association of Colleges of Pharmacy, and a director and member of the Executive Committee of the American Foundation for Pharmaceutical Education.

Dr. Schaefer is also chemist for the New York State Board of Pharmacy, a director of the American Druggist Insurance Company, and a consultant to numerous drug firms.

Dr. Schaefer has been dean of the Brooklyn College of Pharmacy since 1937. He holds a Ph.G. degree from New York College of Pharmacy, a Ph.C. and Phar.D. from Columbia University, and a Ph.D. *cum laude* from the University of Berne, Switzerland. In 1951 he received an Honorary D.Sc. from the Philadelphia College of Pharmacy and Science.

Upon his retirement, Dr. Schaefer will become Dean Emeritus.

On July 21st, he begins an extended tour of Europe and upon his return plans to continue being active in pharmaceutical organizations.

Remington Medalist Named

Dr. Frank W. Moudry, a practicing pharmacist of St. Paul, Minnesota, and long-time Secretary of the Minnesota State Board of Pharmacy, will receive the 1956 award of the Remington Honor Medal, pharmacy's highest recognition of service to the profession. Dr. Moudry has served pharmacy in many capacities and is recognized for his invaluable contributions to pharmaceutical legislation, law enforcement, and other activities in connection with his serving as Secretary of the Minnesota Board.

The Remington Award was established by the New York Branch of the American Pharmaceutical Association in 1918 to be given annually to the individual who has done most for American Pharmacy in the previous year, or whose continuing contributions to the advancement of the profession over a period of years have been most outstanding.

Yalon Promoted to Associate Administrator

Mr. Jerome M. Yalon, formerly Chief Pharmacist and more recently Assistant Hospital Administrator at the University of California Medical Center, San Francisco, has been promoted to Associate Administrator of Hospitals at the Center. At the same time, Mr. Harold H. Hixson was named Administrator. Announcement of the new appointments was made by Mr. Richard J. Stull, Vice-President of Medical Affairs for the University.

Mr. Yalon, a member of the SOCIETY, is well known to hospital pharmacists. He has served on national committees and has participated in several institutes on hospital pharmacy.

P.H.S. Offers Reserve Commissions

The Surgeon General of the United States Public Health Service, Dr. Leonard A. Scheele, recently announced that qualified pharmacists and other professional health personnel actively engaged in public health practice and preventive medicine are being encouraged to apply for commissions in the Service's expanding Commissioned Reserve.

Dr. Scheele said the Commissioned Reserve is being expanded to increase the Nation's readiness to meet the unusual public health demands of national emergencies and that the Public Health Service is interested in encouraging greater participation in the program by professional groups. Physicians, nurses, sanitary engineers, and dentists make up the majority of officers now in the Commissioned Reserve.

In the event of national emergencies, the Surgeon General explained, the Commissioned Reserve, composed of qualified professional health personnel, would have the opportunity of serving their country in the capacities for which their professional training and experience have fitted them.

Commissioned Reserve officers will be called for emergency duty primarily to reinforce the staffs of official State and local health agencies and to augment the Public Health Service operating staff.

Dr. Scheele also pointed out that no Commissioned Reserve officer will be called to emergency active duty, with the exception of volunteers, unless the situation is publicly recognized as requiring such action.

Expansion of the Commissioned Reserve began approximately 18 months ago as the result of a delegation of authority from the Federal Civil Defense Administration. The delegation authorized the Public Health Service to proceed on three main fronts: Intensify research on the detection and control of diseases associated with major national disasters; develop a program to assist State and local health departments in emergency restoration of basic health services; expand and reorganize the Commissioned Reserve for rapid mobilization in the event of enemy attack or other national crisis.

All interested personnel are invited to write to the Surgeon General, Public Health Service (DP), Washington 25, D. C. for information about the Commissioned Reserve.

Robert Hardt Honored

Rutgers University awarded the honorary degree of Doctor of Pharmacy to Robert Andrew Hardt, Vice President and Director of Hoffman - La Roche Inc., at its Commencement Exercises on Wednesday, June 6, 1956.

A graduate of the University of Nebraska, Mr. Hardt is president of the National Pharmaceutical Council, a past president and director of the American Pharmaceutical Manufacturers' Association and a member of many professional societies. He is the author or co-author of numerous books and papers in the field of pharmacy and marketing. He resides at 211 Gates Avenue, Montclair, New Jersey.

Superstine Accepts New Position

Mr. Edward Superstine, formerly with the West Disinfecting Company, Long Island City, New York, has recently accepted the position as Chief Pharmacist at the Metropolitan Hospital in Detroit. Prior to going with the West Company, Mr. Superstine was Assistant Chief Pharmacist at Duke University Hospital, Durham, North Carolina. He holds a Master of Science degree from the University of Michigan Graduate School, with an internship in hospital pharmacy at University Hospital, Ann Arbor.

Hospital Week Award to Frank F. Stencil

Mr. Frank F. Stencil, Montefiore Hospital, Pittsburgh, Pennsylvania, is the recipient of the Award presented by the American Pharmaceutical Association for the best hospital pharmacy display during National Hospital Week. Sponsored annually by the American Hospital Association, the Week was observed this year from May 6 to 12. Members of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS were urged to participate.

The Display award, consisting of a plaque, will be presented at the Annual Meeting of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS to be held in conjunction with the Convention of the A.Ph.A. in New York City during the week of April 28, 1957.

Winning Hospital Week Display.

The Burnet Company—Change of Address

The attention of hospital pharmacists is called to the change of address for The Burnet Company, distributor of the Rotax Tablet-Capsule Counting and Filling Machine. The new address is as follows: The Burnet Company, East Midland Avenue, Paramus, New Jersey. Details regarding use of the Rotax Machine can be obtained by writing directly to the company and requesting a copy of the descriptive brochure B-1.

Alex Berman Accepts New Position

Dr. Alex Berman, Acting Secretary of the American Institute of the History of Pharmacy, has accepted a faculty appointment at the University of Michigan, College of Pharmacy, and will assume his new duties September 1. In conjunction with this appointment, Dr. Berman will also serve as Program Director of a hospital pharmacy survey which is being undertaken by the College of Pharmacy under a grant awarded by the Michigan State Legislature.

Dr. Berman has made numerous contributions to THE BULLETIN and was, at one time, a practicing hospital pharmacist. He is also doing research in connection with hospital formularies and a series of papers on this subject is being published in current numbers of THE BULLETIN.

William Slabodnick in Hospital Administration

William Slabodnick, formerly Chief Pharmacist at Massillon City Hospital, Massillon, Ohio, has recently completed graduate work in the course in hospital administration at the University of Chicago. He has accepted an appointment as Assistant Administrator to Robert L. Zucker, Massillon City Hospital. Mr. Slabodnick is well known to members of the SOCIETY and has served on the Executive Committee.

Frank Steele Appointed Instructor

Frank J. Steele, Chief Pharmacist at the Greenwich Hospital, Greenwich, Connecticut, has been appointed Instructor in Practical Cosmeticology at the J. M. Wright Technical School in Stamford, Connecticut. The school is operated by the Connecticut State Department of Education, Bureau of Vocational Education.

Paul Bjerke Reappointed to Hospital Council

Mr. Paul G. Bjerke, Chief Pharmacist at Luther Hospital, Eau Claire, Wisconsin, has been reappointed to the Advisory Hospital Council in the State of Wisconsin. Mr. Bjerke will again represent pharmacy on the Council and will serve for a three year term ending July 31, 1959.

Mr. Bjerke has been acitve in hospital pharmacy organizations both locally and nationally. He has participated in the Wisconsin Society of Hospital Pharmacists and has served on numerous committees in the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. Also, he served a term as a member of the ASHP Executive Committee.

Nun Honored for Work in Pharmacy

Sister Mary Helen, a Nun who has spent 65 of her 83 years as a pharmacist, was recently honored by the California State Board of Pharmacy. A certificate of appreciation was presented to her for "distinguished service as a registered pharmacist 'in that state' and for meritorious service performed in the interest of public health and safety." The award, signed by Harold B. Garfield, president, Floyd N. Heffron, secretary, and members of the Board, was presented at the 50th anniversary banquet of the California Pharmaceutical Association. Although Sister Mary Helen had undergone an eye operation and was not able to attend, her niece, Mary Telles of San Francisco, accepted the scroll for her aunt.

The story of her career as a pharmacist dates back to September 1889 when 12 young Irish girls arrived on the island to enter the religious life. She had graduated from high school in Limerick and took her first vows at an early age. After a year of working around the wards, she was assigned to work in the pharmacy. Although there were no formal courses in pharmacy, she studied chemistry and was able to identify drugs. She took the state board in California and was the first nun to be issued a state board license in that state.

Following her first assignment at St. Mary's Infirmary, Galveston, Texas, Sister Mary Helen was sent to St. Joseph's Infirmary in Santa Fe, N.M. and later to Los Angeles when the Sisters of Charity opened a hospital there.

1956 Institutes

Since space does not permit the inclusion of stories on the Institutes on Hospital Pharmacy which have been held during the summer months, a complete story covering all 1956 Institutes will appear in the September-October issue of THE BULLETIN.

Austin Promoted

William L. Austin, Chief Pharmacy Consultant of the Medical Service Corps, U. S. Army, has

recently been promoted to the rank of Lieutenant Colonel. In 1955 Col. Austin was appointed as the first full-time Consultant in Pharmacy to the Army Surgeon General. Prior to this appointment, he was Assistant Professor of Military Science and Tactics at Ohio State University.

Col. Austin holds degrees in chemistry, pharmacy and education from the University of Michigan and he holds a degree of Master of Hospital Administration from Northwestern University. He has also completed the advanced course at the Army Medical Field Service School.

In addition to his serving at Ohio State, 1954-55, Col. Austin has served as administrative officer at Birmingham Army General Hospital, Van Nuys, California, 1943-46; as executive officer of the 172nd Station Hospital, Sendai, Japan, 1947-49; and as management officer at the Brooke Army Hospital, Fort Sam Houston, Texas, 1950-53.

Col. Austin holds membership in the A.Ph.A. and the ASHP, the American Hospital Association, and the American College of Hospital Administrators.

A.C.A. Mid-Year Conference in Dallas

Dallas, Texas has been named as the site for the Annual Mid-Year Conference of the American College of Apothecaries according to a recent announcement made by President Leroy Weidle, Jr. The A.C.A. Conference will be held at the new Statler Hilton Hotel in Dallas on Monday and Tuesday, October 22, 23, 1956.

As one of the highlights of the meeting, a "Prescription Pharmacy Clinic" is being planned. As part of the clinic, each phase of the operation of the pharmacy will be discussed by pharmacists from various sections of the country. The subjects to be discussed include, "Buying and Inventory," "Employee Relations," "Prescription Pricing," "Professional Relations," "Professional Promotion," "Accounting and Billing," "Insurance," and "Professional Associations."

The program will also include luncheon addresses as well as a banquet on Monday evening, October 22, 1956.

Other important topics also being planned for discussion include "Dispensing and Physician Owned Pharmacies," "The Role of the Pharmacist in Accidental Poisoning," "Modern Drugs—Their Proper Use and Limitations," "Modern Dispensing Problems," and other topics of vital interest.

All pharmacists are again being invited to attend this Conference whether they are Fellows of the College or not. Further details of the entire program will be made available early in September.

Graduate Program in Pharmacy Administration

A new graduate program in the field of pharmacy administration to be headed by Dr. Paul C. Olsen, has been announced by Dr. Arthur G. Zupko, Dean of Brooklyn College of Pharmacy. The new program will start in September 1957.

Current plans provide for awarding of master's degrees for completion of the prescribed curriculum, Dean Zupko stated, and it is expected that eventually the program will be extended to include the doctorate. The broadened course is being undertaken in cooperation with the Graduate School of Long Island University.

Dr. Herman C. Nolen, president of McKesson and Robbins, former professor of marketing at Ohio State University and now a trustee of the Brooklyn College of Pharmacy, is chairman of the trustees' advisory committee which will plan and conduct the new program of the college.

A.H.A. Convention Scheduled

The Annual Convention of the American Hospital Association will be held in Chicago, September 17-20. Convention activities will be concentrated at the International Amphitheatre with special buses to convey registrants from Chicago's Loop to the Amphitheatre. Details of the program will appear in the August 16 issue of *Hospitals*.

Plant Science Seminar Scheduled

The 33rd Plant Science Seminar will be held August 20 through August 24, 1956 at the St. Louis College of Pharmacy and Allied Sciences. The Melbourne Hotel will be headquarters for the Seminar. The Local Committee is headed by Frank L. Mercer.

Public Relations Booklet

"Why all the Mystery in Prescriptions?" is the title of a booklet recently published by the National Pharmaceutical Council, Inc. The article, originally published in the June issue of *Better Homes and Gardens,* is intended to better acquaint the general public with the practice of pharmacy and, at the same time dispel some of the widespread misunderstandings about our profession. It was prepared by the well-known science writer, Donald G. Cooley.

"Why all the Mystery in Prescriptions?" is being distributed in booklet form by the National Pharmaceutical Council, Inc., 610 Fifth Avenue, New York 20, N. Y. Mailings will be made to every physician, pharmacist, wholesaler, manufacturer, college of pharmacy and of medicine, science writers and opinion molders throughout the country.

NEW MEMBERS

JULY 1, 1956

The following ASHP members have sponsored the New Members listed on this page. The officers of the SOCIETY *and the Committee on Membership and Organization appreciate the efforts of the individuals who have encouraged New Members to join the national organizations. Sponsors will be listed along with the New Members in each issue of* THE BULLETIN.

Barnett, C. B.
Barrett, Gayle J.
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Briner, William H.
Busick, C. L.
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Connolly, Thelma
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Smith, Oscar G.
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Tolar, Ralph C.
West, John D.
Williamson, C. F.

ARKANSAS

Whitten, James R., 1804 S. Jackson, Little Rock (A)

CALIFORNIA

Asche, Clifton A., 230 Soledad Pl., Coronado
Bloomfield, Gloria C., 812 Tufts Ave., Burbank
Cox, John L., 5625 Baja Dr., San Diego
Dep, Frances J., 3022 Florida Ave., Richmond
Kakos, Charles, Staff Pharmacy, U. S. Naval Hospital, San Diego
Korander, Nivous S., 4758 Constance Dr., San Diego
Morinishi, Ted H., 2918 S. Victoria, Los Angeles
Rotenberg, Joseph I., HA 4850436, USNAS Miramar, San Diego
Schuman, Joseph M., U. S. N. H. Staff, San Diego
Sigurnik, Katherine E., 319 Clinton Ave., Roseville
Upson, Arthur G., 221 8th St., Hermosa Beach
Van Dusen, Richard B., 8338 Lemon Ave., La Mesa
Villani, Joseph R., 1702 Primrose Dr., El Cajon
Weatherby, Marion G., 3945 Oregon St., San Diego
Yasuda, Noboru, 4620 Alger St., Los Angeles

COLORADO

Muto, Mary Louise, 1730 N. 7th, Grand Junction

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Pagnini, Anita J., 2242 Myra St., Jacksonville

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Fine, Morris K., 6020 Drexel Ave., Chicago
Hepp, Frank M., 6615 S. Wood St., Chicago

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Pettit, Alvin T., 1810 State Rd. 67 West, Anderson

IOWA

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KANSAS

Holt, John J., 706 Illinois, Lawrence

LOUISIANA

Fields, Harold L., 4725 Western, New Orleans (A)

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Raimondi, Florence E., Franklin Square Hospital, Baltimore

MASSACHUSETTS

Blumsack, Nathan, 30 Sewall Ave., Winthrop

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Collins, Robert B., 1047 San Lucia Dr., Grand Rapids

MINNESOTA

Meysembourg, David M., 1503 2nd St. S. W., Rochester
Schroeder, James B., Box 987, Rochester

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MISSOURI

Murphy, John W., 707 Fieldcrest Dr., Webster Groves
Patel, Chimanbhai P., 4248 W. Pine, St. Louis

NEW JERSEY

Culkin, John F., 234 Horace Ave., Palmyra

NEW YORK

Hamburg, Florence B., Monroe Co. Infirmary, 435 E. Henrietta Rd., Rochester
Shephard, Paul E., Hornell

NORTH CAROLINA

Carter, Wade A., Lowell
Colina, Gilberto D., 4200 Plaza Rd., Charlotte
Gretz, Margaret, Rt. 2, Clear Creek Rd., Hendersonville
Wahlman, Max, V. A. Hospital Pharmacy, Oteen

NORTH DAKOTA

Sister M. Emmanuel, O.S.B., St. Alexius Hospital, Bismarck

OHIO

Fox, Frances L., 6021 Edgehill Dr., Cleveland
Gibson, Nancy B., 2136 Fulton St., Toledo
Kinross, Ralph B., 3836 Boomer Rd., Cincinnati

PENNSYLVANIA

Certo, Josephine, 219 S. Evaline St., Pittsburgh
Gannon, Edward P. Jr., 61 Prospect St., Wilkes Barre
Weinberg, Stanley H., 1905 Federal St. Philadelphia
Wissler, Raymond B., 5800 Ridge Ave., Philadelphia

RHODE ISLAND

Carlin, Herbert S., 59 Hathaway St., Providence (A)

TEXAS

Kinard, Jack, 5007 Creekbend, Bellaire
Sister Mary Aidan Finlay, Hotel Dieu Hospital, Beaumont

UTAH

Takita, Joe M., Dragerton

VERMONT

Sister (Clara) McElroy, Pearl & Prospect Sts., Burlington

VIRGINIA

Tate, Coleman M., 307 Pitt St., Fredericksburg
Thompson, Albert S. Jr., 3111 20th St. N., Arlington

WASHINGTON

Hjort, Earl, 328 N. 102nd St., Seattle

WISCONSIN

Kubiak, Robert J., Winnebago
Patterson, Thomas R., 632 Wingra St., Madison

POSITIONS

in hospital pharmacy

POSITIONS WANTED

REGISTERED PHARMACIST, graduate Detroit College of Pharmacy (1949), M.S. University of Michigan (1951), desires position as chief, preferably in teaching hospital. Experienced in all phases of hospital pharmacy. For further information write to Division of Hospital Pharmacy, 2215 Constitution Ave., N. W., Washington 7, D. C. (PW-5).

HOSPITAL PHARMACIST, recently completed internship, desires position in East preferably as chief in small hospital or assistant in large hospital. For further information write to Mr. Sheldon J. Schwartz, 2938 W. 25th St., Brooklyn 24, N. Y.

POSITIONS OPEN

ASSISTANT PHARMACIST, registered, female, in a Washington, D. C. hospital; 40-hour week, every third weekend; salary open. Address inquiries to Division of Hospital Pharmacy, 2215 Constitution Ave. N. W., Washington 7, D. C. (PO-3)

INDIANA—opening for assistant pharmacist in 225-bed hospital. Address inquiries to Mr. James L. White, Personnel Director, Memorial Hospital, 604 N. Main St., South Bend 1, Ind.

WANTED—immediate opening for chief pharmacist, preferably one who has completed internship in hospital pharmacy, in new 237-bed non-profit community hospital. Please address inquiries to the Cabell Huntington Hospital, 1340 16th St., Huntington, W. Va.

UNIVERSITY OF VIRGINIA HOSPITAL has opening for pharmacist; graduation from approved school of pharmacy and license to practice in state or eligibility for reciprocity required. Salary range $4512-$5640, 12 days annual leave, 15 days sick leave and other benefits. For further information write to Mr. Paul J. Jenkins, Director of Personnel, University of Virginia, 1416 W. Main St., Charlottesville, Va.

CHIEF PHARMACIST—opening in 500-bed hospital for pharmacist who can reorganize pharmacy and assist in planning new department. Extensive manufacturing contemplated. Salary open. For further details write to Mr. Paul Meyer, Administrator, St. Mary's Hospital, 3830 Lacombe Ave., Montreal 26, Que., Canada.

WANTED—2 staff pharmacists for completely new and modern pharmacy in a 600-bed hospital. Liberal benefits include paid vacation, holidays, sick leave, hospitalization, and life insurance. Salary open. Apply to John E. Ryan, Chief Pharmacist, Wesley Hospital, Wichita, Kansas.

ASSISTANT PHARMACIST—Male or female. 350 bed hospital in central Pennsylvania. Contact Robert C. Herriman, Chief Pharmacist, The Altoona Hospital, Altoona, Pa.

STAFF PHARMACIST—300 bed hospital. Male or Female. Beginning salary $4800 to $5100, depending on experience. 44 hour week. Generous benefits. Contact John H. Deans, Assistant Administrator, City Memorial Hospital, Winston-Salem, N. C.

STAFF PHARMACIST—700 bed teaching institution. Experience available in dispensing, bulk compounding and manufacture of parenteral solutions. Salary open, 40 hr. week, other benefits generous. Contact P. Maboll, Chief Pharmacist, Strong Memorial Hospital, Rochester, New York.

Advertisers

JULY - AUGUST 1956

Clinical Data on the NEW Long-Acting Aqueous ACTH

CORTROPHIN-ZINC

(Brand of Corticotropin-Zinc Hydroxide)

Organon

Hospital pharmacists who desire copies of this brochure for distribution to staff physicians may obtain same by writing to Organon Inc., Orange, New Jersey.

Advantages of CORTROPHIN-ZINC

- 24-72 Hour Duration of Activity
- Greater Response from Enhanced Potency
- Easy to Administer Through Fine Needle
- No Heating Required
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- Effective Even in Some Patients Refractory to Oral Corticosteroids
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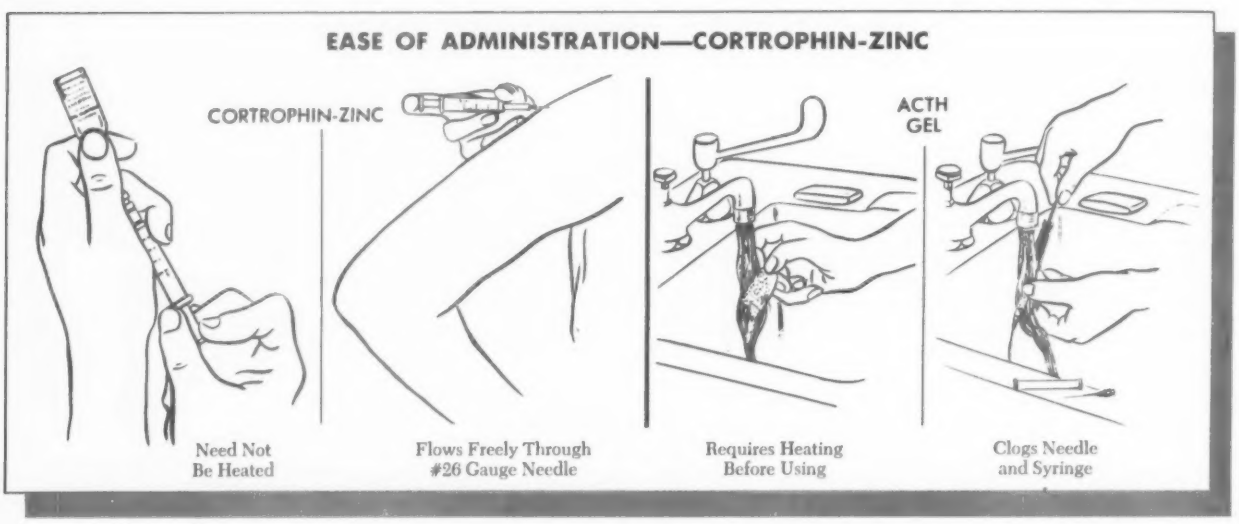
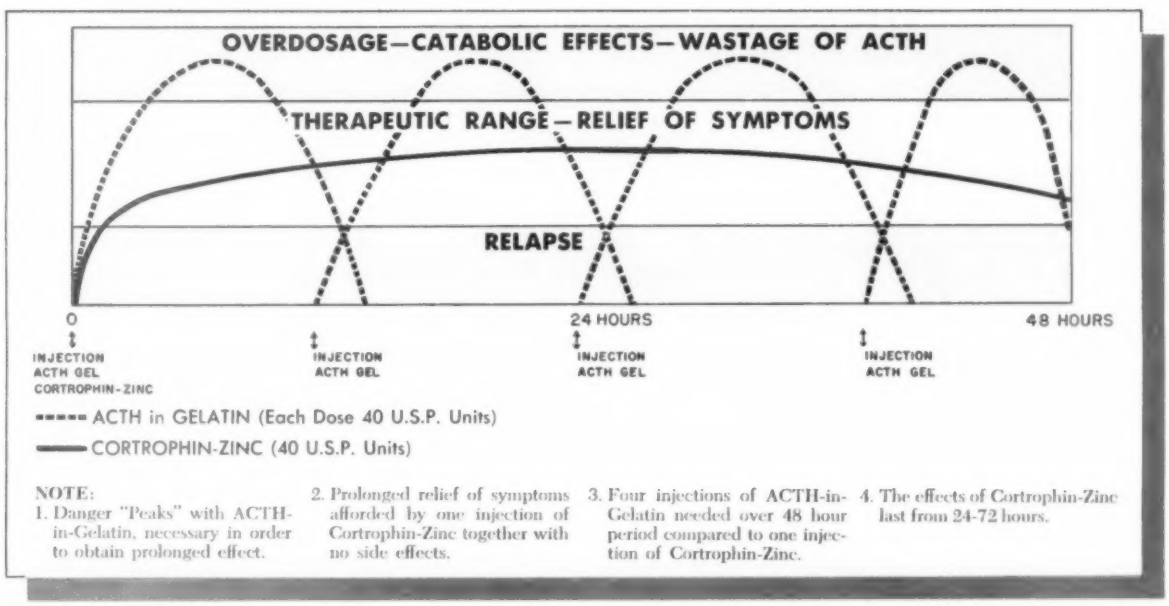


2½ Years of World-Wide Clinical Use

In 1951 there appeared the first report[1] that insoluble zinc salts not only prolong the action of ACTH but also spare this hormone from early destruction in body through the action of protein-splitting tissue enzymes. Confirming reports soon followed.[2,3] Further improvements by Organon led to Cortrophin-Zinc which has now been in extensive world-wide use for the past 2½ years. Published reports[4-32] and results in thousands of patients have repeatedly demonstrated the therapeutic effectiveness and safety of Cortrophin-Zinc. Outmoding all forms of ACTH available heretofore, Cortrophin-Zinc is a truly long-acting (24-72 hours) aqueous suspension which provides the complete physiologic action of ACTH, enhanced, prolonged, and with a convenience of administration never before possible.

Prolonged Action of **CORTROPHIN-ZINC**



NOTE:
1. Danger "Peaks" with ACTH-in-Gelatin, necessary in order to obtain prolonged effect.
2. Prolonged relief of symptoms afforded by one injection of Cortrophin-Zinc together with no side effects.
3. Four injections of ACTH-in-Gelatin needed over 48 hour period compared to one injection of Cortrophin-Zinc.
4. The effects of Cortrophin-Zinc last from 24-72 hours.

Action Prolonged Yet Rapid

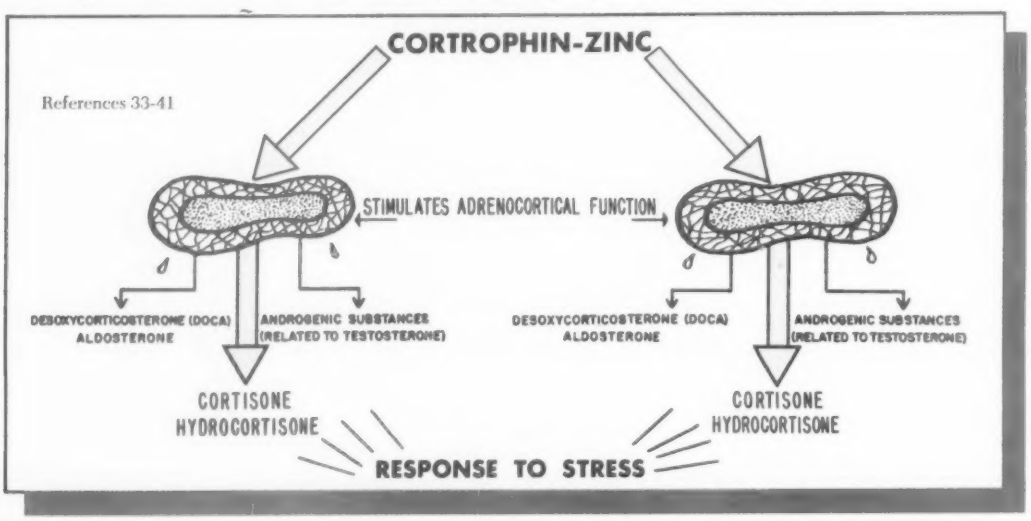
Although Cortrophin-Zinc is long-acting, it has an onset of action equal to or better than that of ACTH gel preparations. This rapid action is the result of "free" ACTH (2%-5%) in the suspension which is picked up quickly by the blood and transmitted to its target organs, the adrenal glands.

Route and Method of Administration

Experience has shown the following method to be most effective for obtaining optimal therapeutic and subjective results: Cortrophin-Zinc should be injected intramuscularly into the deltoid muscle. A #26 gauge hypodermic needle and insulin syringe may be employed. For convenient home administration, the physician may wish to instruct a member of the patient's family in this method of intramuscular administration of Cortrophin-Zinc.

USE CORTROPHIN-ZINC INTERMITTENTLY TO AVOID CORTICOSTEROID-INDUCED ADRENAL ATROPHY

Since ACTH is the true stimulant hormone of the adrenal cortex, Cortrophin-Zinc should be administered intermittently during therapy with cortisone, hydrocortisone, prednisone (metacortandracin) or prednisolone (metacortandralone). These steroids suppress adrenocortical function, while Cortrophin-Zinc stimulates natural adrenal production of the body's own corticosteroids *in physiologic proportions.*



INTERMITTENT CORTROPHIN-ZINC DOSAGE SCHEDULE

FOR ALL PATIENTS ON ORAL CORTICOSTEROID THERAPY
(Cortisone, Hydrocortisone, Prednisone, Prednisolone)

In order to prevent adrenocortical atrophy in patients being treated with *any* of the oral corticosteroids, the following Cortrophin-Zinc dosage schedule is suggested:

FOR EVERY	INJECT*
100 mg. of PREDNISONE or PREDNISOLONE 200-300 mg. of HYDROCORTISONE 400 mg. of CORTISONE	60 UNITS OF CORTROPHIN-ZINC

Discontinue the oral steroid on the day of the injection of Cortrophin-Zinc. In patients with known adrenal hypofunction, discontinue the oral steroid 12 hours after the injection of Cortrophin-Zinc.

*Because of its enhanced ACTH activity, less Cortrophin-Zinc is required to maintain adrenocortical function during oral corticosteroid therapy than is the case with ACTH gel.

Use CORTROPHIN-ZINC *to Improve Operability*

CORTROPHIN-ZINC MAY BE USED TO GREAT ADVANTAGE BY THE SURGEON. THROUGH ITS USE, INOPERABILITY MAY BE CONVERTED TO SAFE OPERABILITY, PARTICULARLY IN THE PATIENT WHOSE LESION APPEARS OPERABLE BUT WHOSE PHYSICAL CONDITION IS SO PRECARIOUS THAT OPERATION IS DEEMED UNSAFE.

"...WE HAVE CONFINED OUR THERAPY TO ACTH BECAUSE OF THE POSSIBILITY CORTISONE MIGHT PRODUCE ATROPHY OF THE ADRENALS..."[42]

THE PREOPERATIVE USE OF ACTH HAS PRODUCED MARKED BENEFICIAL EFFECTS IN THE FOLLOWING SURGICAL CONDITIONS:[42,43,44]

Malnutrition States
Adrenal Insufficiency
Burns
Inadequate Pituitary-Adrenocortical Reserve
Ulcerative Colitis
Thrombocytopenic Purpura

SUGGESTED DOSAGE — TO ASSURE ADRENOCORTICAL RESPONSE IN THE FACE OF OPERATIVE STRESS, ADMINISTER 1 CC OF CORTROPHIN-ZINC DAILY ON THE TWO DAYS PRECEDING SURGERY. THE OBJECTIVE OF THIS THERAPY IS THE PREVENTION OF OPERATIVE OR POST-OPERATIVE SHOCK.[45]

Recent Clinical Reports

From the A.M.A. meeting, June 11-June 15, 1956, Chicago, Illinois*

COMPARISON OF DOSE BETWEEN ZINC ACTH AND ACTH GEL*

Case	Diagnosis	Dose of Zn ACTH	Dose of ACTH Gel
A.M.	Rheumatoid Arthritis	40 u/day	60 u/day
F.W.	Diss. Lupus Erythemat.	70 u/day	50 u/12 hrs.
J.S.	Rheumatoid Arthritis	20 u/day	30 u/day
F.F.	Diss. Lupus Erythemat.	30 u/day	30 u/day
D.R.	Rheumatoid Arthritis	20 u/2 days	30 u/2 days
M.D.	Rheumatoid Arthritis	60 u/3 days	80 u/3 days (inadequate control)
E.V.P.	Diss. Lupus Erythemat.	90 u/day	60 u/12 hrs.
M.W.	Rheumatoid Arthritis	40 u/day	60 u/day
M.C.	Rheumatoid Arthritis	20 u/day	40 u/day

Average Ratio of Zinc ACTH/ACTH Gel = 43 u/61 u

DURATION OF ACTION OF A SINGLE DOSE OF ZINC ACTH*†

Case	Diagnosis	Dose	Duration
M.D.	Rheumatoid Arthritis	30 units	7 days
E.M.	Dermatomyositis	48 units	7 days
F.R.	Rheumatoid Arthritis	40 units	5 days
A.A.	Diss. Lupus Erythemat.	40 units	3 days
M.C.	Undifferentiated Collagen Dis.	40 units	2 days
D.R.	Rheumatoid Arthritis	20 units	2 days
F.F.	Diss. Lupus Erythemat.	30 units	2 days

†Period of time during which a single dose of Zinc ACTH caused a satisfactory suppression of the symptoms of the disease.

"In summary, zinc ACTH appears to be an effective agent for the suppression of the symptoms of the collagen diseases in which it was used. In addition, it has a duration of action that is greater than that of any other available form of ACTH, and is more effective per unit than the gel."

*Banghart, H. E. and R. K. Watanabe: Scient. Exhibit, Ann. Mtg., A.M.A., Chicago, Ill., June 11-June 15, 1956.

From the Medical Journals

". . . more potent and longer acting than any other form of repository type ACTH tested."

Homburger, F. and C. Bonner: *Bull. New Engl. Med. Cent., XVI*:159, 1954.

"The longer acting Zinc ACTH may be helpful in avoiding excessive overdosage which may occur during that part of the day when large doses of the shorter acting gel are employed . . ."

Brugsch, H. G.: *Bull. Acad. of Med. N. J., 1*:21, 1955.

Excellent clinical response . . . absence of toxic reactions . . . greater convenience of administration.

Laidlaw, J. C., Personal Communication.
Soffer, L. J., Personal Communication.
Thurmon, F. M., Personal Communication.

". . . clinically effective and has technical advantages over the oily preparations of corticotropin . . ."

Ferriman, D. G., *et al.: Lancet, I*:545, 1955.

Easier Control of Summertime Allergies with **CORTROPHIN-ZINC**

ACTH is particularly valuable in the treatment of the allergic and hypersensitive conditions which appear frequently during the warm weather months. The physician will find Cortrophin-Zinc the most desirable ACTH preparation to use in treating the following conditions.

POISON IVY, OAK and SUMAC

Suggested Dosage of Cortrophin-Zinc—60 units the first day; if necessary, 40 units the second day; 20 units the third day. (Comparative ACTH gel dosage—100 units the first day; 80 units the second day; 60 units the third day.)

HAY FEVER - ROSE FEVER

Suggested Dosage of Cortrophin-Zinc—20-40 units once daily for two days; maintain on 20 units 2-3 times weekly as long as required. (Comparative ACTH gel dosage—40-60 units daily for two days; maintain on 40 units 2-3 times weekly as long as required.)

BRONCHIAL ASTHMA

Suggested Dosage of Cortrophin-Zinc—40-60 units daily until control is achieved; 40 units twice weekly, if necessary, for maintenance. (Comparative ACTH gel dosage—40-80 units every 12-24 hours for 2 days; 20-40 units once on the third day; 20 units once daily thereafter if necessary.)

URTICARIA (HIVES)

Suggested Dosage of Cortrophin-Zinc—40-60 units once daily until symptoms are relieved. (Comparative ACTH gel dosage—80-100 units once daily until symptoms are relieved.)

SEASONAL ALLERGIC RHINITIS

Suggested Dosage of Cortrophin-Zinc—20-40 units once daily for 2 days; maintain on 20 units every 2-3 days as long as required. (Comparative ACTH gel dosage—40-80 units once daily for 2 days; maintain on 40 units every 2-3 days as long as required.)

SEVERE REACTIONS TO INSECT STINGS

Suggested Dosage of Cortrophin-Zinc—20-40 units daily until relief is obtained. (Comparative ACTH gel dosage—40-60 units daily until relief is obtained.)

Dosage Information

Dosage of Cortrophin-Zinc should be individualized. Because of its enhanced and prolonged activity, fewer injections are needed. Gain initial control of symptoms with an injection of 40 U.S.P. units (in severe cases, 60 units) of Cortrophin-Zinc daily. Once symptoms have been controlled, increase interval between injections to 48 and then to 72 hours. For maintenance therapy, ½ cc (or less) daily to twice weekly may suffice. Better response may be obtained in those patients who have received neither ACTH nor adrenal steroids previously.

Indications

At present, the number of conditions amenable to ACTH therapy approximates 100, with the following diseases being especially responsive: rheumatoid arthritis, rheumatic fever, bronchial asthma, dermatologic disorders, drug sensitivities, allergic reactions, acute inflammatory eye diseases, and to counter adrenal suppression caused by therapy with any of the adrenal corticosteroids.

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Package Information

Cortrophin-Zinc is an aqueous suspension of purified corticotropin with zinc hydroxide. It is available in 5-cc vials, each cc of which provides 40 U.S.P. units of corticotropin with 2.0 mg. of zinc.

Organon INC. • ORANGE, N. J.

Available in Other Countries as Cortrophine-Z

Cortrophin-Zinc Patent Pending

OFFICIAL REPORTS

1956 DETROIT MEETING APRIL 8–10

American Society of Hospital Pharmacists

CONTENTS

CLAUDE BUSICK

It is customary for the President of this, your Society, to render an account of the year's activities and recommendations for the good of the Society.

First I want you to know how very grateful I am for the opportunity of serving as President of the American Society of Hospital Pharmacists. It has been a challenge and an interesting experience. The knowledge and friendship gained grow richer with the passage of time.

During the year I covered 40,012 air miles; I attended Chapter meetings in Oregon, Tennessee and Northern California. I spoke at seminars in Southern California and Texas; represented the Society at the Catholic Institute in St. Louis, the meeting of the Southeastern Society at Birmingham; the Institute at Atlanta, the first Institute on Hospital Pharmacy of the Canadian Society at Vancouver and the Federation Internationale Pharmaceutique in London. I also participated in a meeting of the Joint Committee of the American Hospital Association and the ASHP in Chicago and a meeting of our Executive Committee in Indianapolis.

Everywhere I found a keen interest and devotion to our specialty of pharmacy—hospital pharmacy. I also noted a keen desire to grasp new methods for the improvement of patient care.

In the past fourteen years wonderful progress has been made in hospital pharmacy. I would like now to list a few things that have added to the progress this year.

Two new chapters have been added to our Society—the Greater Kansas City Chapter and the Virginia Society of Hospital Pharmacists.

The National Formulary Service is beginning to function and the Formulary will be ready for distribution early next year. This news, I know, will please you all. Preparations are being made for a journal to supplement The Bulletin in its off issue months.

A Special Committee has been appointed to formulate the guidance of acceptance of grants and gifts to the Society.

383 new members have joined the Society this year. And, only 274 members have dropped out. Previous experience indicates these latter individuals, for, the most part, have departed from our specialty of pharmacy to enter another.

The progress of the Society for the last year has been most satisfactory. Real progress has been made as you will note from the reports you will hear this week. The criticism directed to us by one national pharmacy journal that felt we were diluting our efforts is entirely unfounded, I can assure you. The National Hospital Formulary Service is a service that will be a reality. We are doing this and more!

Federal Grant To Pharmacy

A $36,000 Federal grant, the first and only Federal grant made to pharmacy, to my knowledge, has been made to the Division of Hospital Pharmacy of the American Pharmaceutical Association to conduct a study of pharmacy service in hospitals. Objectives of the study are: (1) to determine the elements required to perform adequate pharmaceutical services such as personnel, equipment, and amount and location of floor space required to improve the pharmaceutical aspects to the hospital patient; (2) to provide essential pharmaceutical service to the hospital and the medical staffs; (3) to establish a standard of pharmaceutical practice for hospitals of different sizes and types; (4) to determine how to provide the best possible pharmaceutical service at the most reasonable cost; and (5) to determine other hospital functions wherein the education and training of hospital pharmacists can be utilized to the best advantage. I have stated that as your president, I am most proud of the progress we have made in developing better pharmaceutical service for the hospitalized of the land.

Utilization Of Hospital Pharmacists

I now wish to call to your attention a danger that gives me concern. A danger, which hospital administrators, Dr. Robert Cadmus and Mr. Joe Vance, have alerted us to. That is the practice of using hospital pharmacists as technicians in the fields of x-ray and in the laboratory. Mr. Vance has implied, and correctly so, in my opinion, that the continuation of such practice can only bring to hospital pharmacy the same type of criticism that has decended upon our retail pharmacies by their "handling of garden hose, ladies hose, and hardware." The continuation of this practice could be a severe blow to our professional status.

I recognize fully the problems of the small hospital in staffing. I agree that a combination position of administrator and hospital pharmacist as advocated in Georgia and Virginia, and as evidenced by the graduate courses in hospital administration given to graduate pharmacists in these states, is a sound, constructive program that properly utilizes the competency of the hospital pharmacist. I do not for a minute agree with those administrators and hospital pharmacists who feel that the solution to this small hospital problem must be one of using hospital pharmacists at the technician level. Such is a sheer waste of needed pharmacy manpower and must be condemned by this Society. A more logical approach is the one that utilizes one pharmacist in several small hospitals. Considering the large number of small hospitals now being built in the U. S. under the Hill-Burton Act, I do feel this problem is a pressing one. I believe this Society should, at this convention, take a stand condemning the practice of utilizing hospital pharmacists as mere technicians. Let us take warning now before this insidious practice injures that which has been built so well these past 14 years—our practice of hospital pharmacy. I ask that this group pass and publicize a resolution condemning this practice.

The Future

In my year as president, I have been more than delighted with what I have seen concerning our specialty. We have indeed come far in the past 12 to 14 years as a Society. Now the future—where do we go from here? For just a moment let us pause and note if we, all of us, are practicing fully that which we preach—team work of the hospital team through cooperation and education. I note that leaders like Daniel Moravec, is the Pharmacy Editor for *Hospital Management*. I note also that our immediate past president, George F. Archambault, has been active in team work activities; with the Medical Record Librarians' Association in connection with adverse drug reactions, also with lawyers and hospital administrators in connection with the jurisprudence of hospital pharmacy. I note also our own distinguished Editor of The Bulletin, Dr. Don Francke, contributing articles on hospital pharmacy to the national journals. But I ask, is this enough? I am fearful that too many administrators are still thinking of hospital pharmacy as "Drug Room Pharmacy" or "Basement Located Pharmacy." I am pleased to note several of our state chapters now hold their meetings with their local hospital associations. But is this enough? The answer—clearly is "No." How many hospital administrators actually attend our sessions even when we meet simultaneously with theirs? Too few, indeed. And, how often do we find articles by hospital pharmacy administrators in the leading hospital journals, such as *Hospitals, Hospital Progress, Hospital Management* and *Modern Hospital*. Certainly not often enough. Again how often do we note a hospital pharmacist speaking before the full assembly of a state or national group of hospital administrators. Such as at the American Hospital Association Convention. This, in my opinion, is where our real future lies—in developing our contacts in these areas so that hospital administrators will be as conscious of our valued services on the hospital team, as they now are of the dietitians, the nurses and the other paramedical services. I ask that you take this message back to your local chapters and discuss how best to solve this problem in your state. I ask our incoming officers, especially our president-elect to give this matter much of his time in the year to come. I hope to see the day when nationally prominent pharmacists will be found on key spots of national convention programs of the A.H.A. and the C.H.A. I hope to see hospital pharmacists discussing the hospital administration problem of the hospital pharmaceutical service in these sessions with hospital administrators. Then and then only, will I feel that our specialty is "Being Heard" and is able to offer its best service to the ill and the injured of the land.

International Pharmacy

In international pharmacy, there have been several developments of significance since this time a year ago. In September the International Pharmaceutical Federation held a highly successful meeting in London with the largest representation from United States Pharmacy in history (thirty-five). A year ago our parent body, the American Pharmaceutical Association, resolved that the International Pharma-

address of the President

ceutical Federation should be encouraged to continue to work in close cooperation with the World Health Organization, and I feel that the International Pharmaceutical Federation meeting helped to encourage this constructive relationship. Some of the Americans attending had this orientation, and undoubtedly expressed it informally in the halls of the meeting. Mr. Paul Blanc, Chief of the Pharmaceutical Section of World Health Organization, reported on the progress and achievements of the World Health Organization drug programs.

The International Pharmaceutical Federation has appointed Dr. H. Spillmann of Switzerland to be Liaison Officer with World Health Organization. These beneficial developments should presage increasingly effective work by the International Pharmaceutical Federation as the liaison between World Health Organization and member associations.

Let me review briefly some further resolutions adopted a year ago. For two years now, Past President George F. Archambault, has requested that the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS formally recognize the importance of the World Health Organization's international drug programs. Each year this was done and last year such recognition was given also by a resolution of the American Pharmaceutical Association. You will recall that our organizations urged Congress to increase the statutory authorization for the United States contribution to World Health Organization. In July, 1955 Congress took action. In fact, Congress removed entirely the limitation of $3,000,000 on the authorization which had existed for several years. I will not pretend that our resolutions were solely responsible for this action, but undoubtedly our views were helpful in convincing Congress of the growing appreciation in this country of the value of the World Health Programs in general and of the benefits of active U. S. participation in them. What is needed now—and I hope it may be provided in the World Health Organization budget for 1957—is expansion of the capable but very small World Health Organization staff which administers the drug programs. My resolution on this matter will come before you for your consideration during this meeting.

In another resolution last year, our SOCIETY recognized the importance, both to hospital pharmacy and to the international control of narcotic drugs by the United Nations, of securing suitable nonproprietary names for narcotic substances at the earliest moment. Here again, I am glad to report that such arrangements have been worked out, involving particularly the Committee on Narcotics of the National Research Council and the Council on Pharmacy and Chemistry of the American Medical Association, which will encourage United States firms developing new narcotics to propose suitable nonproprietary names to World Health Organization at an early date.

I wish I could say of all the resolutions or wishes expressed by the ASHP that they were followed so promptly by the desired results!

A further event of great interest, is the appearance of Volume II of the First Edition of *International Pharmacopoeia*. You will recall that WHO published Volume I in English and French in 1951 and in Spanish in 1954, and that it has provided considerable guidance in many countries to authorities engaged in the preparation of national pharmacopoeias or specifications.

As you know the American Pharmaceutical Association circulated the monographs in draft in this country, and many of our members can feel pride in their contributions to the text as adopted. Volume II contains 20 monographs, including specifications for some of the pharmaceutical preparations introduced into therapeutics during the last decade and for some synthetic substances of growing importance. Among the 25 appendices is one describing methods of assay and another listing the Standards and Reference Preparations at present available under the WHO International Biological Standards Program. I recommend this volume to your attention as further evidence of WHO's progress in helping voluntary achievement of greater international standardizations in important drugs.

I have the happy impression that the international drug programs which pharmacists, pharmacologists and other scientists in this and other countries are implementing through WHO are becoming more stable and effective in their operations and certainly are becoming more widely understood, accepted and appreciated in this country. Our Executive Committee will continue, I am sure, during the coming year to take an active and, I know, constructive interest in international drug activities. At such time as the U. S. Committee on International Drug Standards may meet, we shall be interested in maintaining an advisory relationship as envisaged by our meeting of August, 1954. We all have reason to be proud of the effective part played by our SOCIETY in stimulating participation in and support of international pharmacy.

Multiple Dose Containers

December 15 last, saw the *U.S.P.XV.* and *N.F. X* become official. What an array of medications the hospital pharmacist has to work with in our time as compared to the hospital pharmacist of colonial days. During my term of office we have seen many numerous advances in the field of clinical pharmacology. Let me mention but three—poliomyelitis vaccine, the tranquilizing agents, and now, wonder of all wonders, an oral diabetic medication such as "Orinase." Unquestionably, our specialty of pharmacy, hospital pharmacy, plays a major role in the distribution of these drugs. It is with pride that I note hospital pharmacy is the full guard in such major advances as these. For several years now, I have been concerned with the dangers inherent in the multiple dose injectible containers in use for narcotics, antibiotics and vaccines. The dangers of the syringe transmitting hepatitis and the dangers of sensitivity to professional workers, to say nothing of other contamination possibilities leads me to request the consideration of this SOCIETY in fighting for the single dose, sterile throw-away closed system injectibles. I note that our community practitioners of pharmacy are on record through an N.A.R.D. legislation, as requesting polio vaccine to be issued in 1 milliliter (1 ml.) vials, the dose for a single individual. I urge that this SOCIETY go further, and request the manufacturers give consideration to the single dose injectibles in some sort of closed system that allows for the discarding of the needle after a single use. I ask that this house consider the legislation on this point in the interest of better patient care. I go further, I predict that within the decade the use of the conventional needle and syringe for the administration of these injectibles used in volume quantities will be as out-dated and obsolete as would the actual making of standardized tinctures and tablets by the majority of us. A type of progress this SOCIETY should and must support.

Pharmacy In The Uniformed Services

During the past year, it has been my pleasure to work closely with Charles Towne and his Committee on Status of Pharmacists in Government Service. I have been somewhat surprised to learn that the profession of pharmacy is not recognized in the same manner as medicine, dentistry, nursing and certain other health professions in the uniformed services; that all pharmacists engaged in professional pursuits in the uniformed services, are not commissioned except in the U. S. Public Health Service. I ask how is this rationalized? Does the law of supply and demand determine what category is to be commissioned in the Armed Services or are commissions to be based on health protection and needs? The staff dentist who stands at his chair all day—is he not commissioned? The nurse, who works on the hospital team with staff pharmacists—is she not commissioned? Why then are not staff hospital pharmacists commissioned in all services, as they so properly are in the U. S. Public Health Service. In my opinion, continued study and action is needed in this area by our parent association, the American Pharmaceutical Association. I, for one, do not believe in the "scarcity of numbers theory" nor in the theory that commissions are granted solely on a "supply and demand" basis. I believe that the health leaders of our armed forces expect and want the best in all phases of health for our Fighting Forces. I believe, too, commissions are as necessary for pharmacists, in obtaining this good care, as they are for physicians, dentists, and nurses. And recently I heard the male R.N. is now a commissioned officer.

I believe firmly that commissions should be based on professional function and I submit the query—wherein is the hospital pharmacist lacking in this respect,—that his associates are not lacking—i.e. the nurse, the dentist, the physician and others of the health profession?

Standardized Catalogs

I note that other specialties of our profession are continuing their efforts towards having pharmaceutical manufacturers standardize their catalogs with respect to size and method of listing prices and discounts. In this matter, hospital pharmacists are also vitally concerned. As your

president, I am sending a resolution to our House of Delegates endorsing this trend and expressing our appreciation to those drug manufacturers participating in this activity. I am requesting that a copy of this resolution be forwarded by the Secretary to the American Pharmaceutical Manufacturers' Association and the American Drug Manufacturers' Association.

Hypnotic Legislation

1956 brings to us rumors of pending Federal legislation intending to control certain hypnotics. I am not unaware that many in other specialities of pharmacy feel that such legislation is unnecessary for the public health. It is my considered opinion, however, as a hospital pharmacist, more directly familiar perhaps with the many facets of this problem than my contemporaries in other fields of pharmacy, that legislation of this sort is needed, and that we hospital pharmacists must endorse and support such legislation. I trust that the SOCIETY will give serious study to this problem and bring in a resolution supporting such legislation in the interest of the public health. I shall submit such a resolution to them.

Acknowledgments

In closing, I do want to take this opportunity to thank every member of the SOCIETY for his or her cooperation during this past year. To the officers elected to serve with me—Vice President Milton Skolaut, and our very able Treasurer Sister Mary Rebecca, my sincere thanks for their help and advice. To Gloria Niemeyer, my sincere thanks for the invaluable help she has given me. To Dr. Don Francke, Editor of THE BULLETIN and to Dr. Robert P. Fischelis of the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, also my thanks for their help. To Dr. George Archambault, my sincere thanks for his friendship and counsel. The members of the Executive Committee, the Committee Chairmen and members of the committees have done a wonderful job. It has been an honor to be associated with all of them. I especially wish to thank my Program Chairman, Leo Godley; the Membership Chairman, James McKinley; and the Government Services Committee Chairman, Charles Towne. These men have done outstanding jobs. I earnestly request that all of you read the "Green Sheets" in a forthcoming issue of THE BULLETIN in order that you may know how well your committees have worked for you this year.

To Dr. Charles Letourneau, Dr. Robert Cadmus and Dr. Sarah Hardwicke of the American Hospital Association and Mr. Ray Kneifl of the Catholic Hospital Association, my sincere appreciation for their interest in our SOCIETY and their splendid cooperation with hospital pharmacists.

You all may well be proud of the fourteen years of SOCIETY activity in hospital pharmacy. It is heartening to note that as individuals and as a group, hospital pharmacists have provided better hospital services for the ill and injured in the 7,000 hospitals of the country. With a solid foundation of learning and experience behind us, we can now look ahead with confidence to a continuing growth in the future.

I bid you farewell shortly as your president—tomorrow I turn this gavel over to Paul Parker in whose hands, I know, the immediate future of this SOCIETY, as a truly professional mature and dignified association—is secure.

address of the President-elect

PAUL F. PARKER

Members of the House of Delegates, guests, ladies and gentlemen:

It is an honor which touches me deeply that you, the hospital pharmacists you represent, and the other hospital pharmacists throughout the nation, have elected that I should occupy this position on the program today. The scope of the problems confronting hospital pharmacy today are such that to continue our present rate of progress will require the enthusiastic participation of every member of our organization. From those who are experienced in SOCIETY affairs, we will need constant advice and diligent work, particularly in those areas which require so much background knowledge in what and why things have been done previously. There are also a large number of new problems, projects and responsibilities which will have to be assumed by members with less experience but who are willing to devote more than an ordinary amount of enthusiasm, thought and time to professional matters. In these matters I can only plead for your assistance and pledge wholeheartedly to do my very best to guide the activities of your organization during the coming year in a direction which will accrue to the greatest benefit for hospital pharmacy.

It has been traditional that we should accomplish the major part of our work through committees. Though much has been said and even more thought about the inadequacy of such an arrangement the very nature of our organization dictates that we use such a method. The inherent difficulties of this system can be overcome to some extent if we can successfully acquaint the chairman of each of the committees with the responsibility he is to have and the job to be done. I feel confident that we can expect progress during the coming year since each chairman has been selected because he is an experienced administrator who can be depended upon to interpret his responsibility and delegate work according to a reasonable plan. In the appointment of the members of the committees, we have not simply listed names; nor have we made an attempt to represent each segment of the SOCIETY, particularly with regard to geographic location. Almost all of these individuals have been recommended as diligent workers and we believe are the persons best qualified to get the most work done. It is suggested that every member of each committee acquaint himself with the background of the work in that committee in previous years by reading the reports which have from year to year been published in the Proceedings Issue of THE BULLETIN. Since it is impossible in most instances for the SOCIETY to pay the expense of having the committees meet throughout the year, of course it will be necessary that a considerable amount of correspondence take place between the members of each committee. Finally, and perhaps most important, it is necessary that the total activity of the committee be reported in detail together with specific recommendations to be acted upon at the convention.

My remarks to you this afternoon can, by and large, be divided into two categories: Recommendations concerning the improvement of hospital pharmacy as a profession; and secondly, suggestions concerning this SOCIETY as an organization working toward these improvements.

Frequently there has been some confusion in my own mind as to just what problems should or should not be of primary concern to our SOCIETY. As a result, I have come to the conclusion that one criteria might be the benefits which the question at hand may have toward the improvement of our profession. This presupposes that a professional organization should have as its motivation the primary concern of the profession itself rather than the interest of individuals or groups of individuals who practice the profession.

Minimum Standard

One of the outstanding professional accomplishments in our organization has been the work on the minimum standard. This has been an arduous task over a period of several years and considering the difficulties involved we might be tempted to leave well enough alone. However, the final standard as approved by the related health organizations was at best a compromise in some respects. Further, it is only reasonable to expect that our standards should change as our practices change. It therefore seems appropriate that we should at this time begin to consider the adequacy of our basic standard from a "new look." For this reason I am appointing a relative newcomer to the field of hospital pharmacy as chairman of the Minimum Standards Committee. Though he is a newcomer, I feel that there are few people in hospital pharmacy who are more devoted to its interests than Clifton Latiolais.

Another problem of the Committee on Minimum Standards will be the matter of education. There could be little doubt of the value and need for educational programs which have and are being made available to hospital pharmacists. These include undergraduate courses in schools of pharmacy, graduate programs leading to a master's degree, internships, both on an academic basis and as an on-the-job type training program, institutes, seminars, and others. Such a myriad of educational approaches have been possible only through very close cooperation between several groups which are represented broadly by hospital pharmacy as a specialty, by pharmacy (including pharmaceutical educators) and by hospitals. It would almost seem that no one of these groups could take credit for or assume the responsibility for any of the programs; thus, we are now confronted with potential problems in hospital pharmacy education. The first of these problems concerns the need for accreditation of internship programs. It now seems likely that the responsibility for this matter will be carried by the Division of Hospital Pharmacy and it is not unlikely that we will see progress on this front during this convention. At any rate, we recognize that there is an immediate need for such a program. In fact, there are tangible benefits which we could well have missed for delaying the program thus far. Again, this is due largely to the fact that our organization is not financially equipped to carry on costly programs of an extended nature. It is our

hope that the accreditation program will be a reality in the near future and that the ASHP will lend every assistance to make it a success.

Internships

A second problem concerns the confusion that exists regarding responsibility for internship programs in hospital pharmacy. By this we mean the confusion as to whether the pharmaceutical educators or the hospitals should control the pharmacy internship program in hospitals with which the College of Pharmacy is affiliated. This is a real problem in several instances and we recommend that this Committee give consideration to the problem and make recommendations to the SOCIETY.

A third problem of education concerns the effect that the five- and six-year undergraduate programs will have on the number of people who will want to pursue a two-year graduate program in hospital pharmacy. This is a matter of serious concern and we expect that Dr. Purdum, as chairman of the Committee on Minimum Standards this year, will discuss this problem in his report.

Still another matter which we as hospital pharmacists should not overlook is that it would not be unlikely that hospitals at some future date would want to coordinate all their educational programs through some sort of centralized agency. It is easy to understand that it would be better for them to be able to deal directly in their educational standards and accreditation programs rather than through the various organizations of the several professions with which they are concerned. I mention this latter matter only to point out that the need is immediate for us to get our feet off the ground with regard to hospital pharmacy educational matters.

Still a third area of responsibility for the Committee on Minimum Standards is the matter of pharmacy-operated central sterile supply services. The Chairman of this committee, Mr. Skolaut, will recommend to this group tomorrow that this Committee be made a Subcommittee of the Minimum Standards Committee. This is particularly desirable since then the Committee would be able to report directly to the Executive Committee. We would, therefore, like to appoint Mr. John Salvino as Chairman of this Subcommittee.

Program and Public Relations

The next major consideration today concerns program and public relations. We are asking Grover Bowles to assume the responsibility for this important segment of our work. The institutes and conventions have had tremendous significance in the development of the type of organization that we are. It is a real thrill to refer back through the various issues of THE BULLETIN that describe the enthusiasm with which hospital pharmacists have received these programs. As is customary, this Committee will be responsible for the program of the next convention as well as the two institute programs, working with the secretary of the SOCIETY and the American Hospital Association. With specific regard to institutes, it might be well to keep in mind the policies which have worked and been so successful through the years to see that these are not gradually changed for expediency. This will require a very close working relationship between the co-sponsors of these programs. From time to time the desirability of having more seminar-type programs on a regional basis throughout the country has been mentioned. An increased number of such programs are being conducted in conjunction with regional hospital associations, regional hospital pharmacy groups, and there is a possibility that industry-sponsored seminars of this type could be developed. It is our hope that during the coming year this Committee will study the matter of making more programs available to more people and make recommendations to the SOCIETY.

Good programming serves two purposes. The first to inform and the second to afford an opportunity for hospital pharmacists to get together, become acquainted and "generate a group enthusiasm." Not uncommonly we hear our friends in the related fields of pharmacy or in one of the related health professions admire the growth of hospital pharmacy in terms of its oneness. This is a result of good public relations. Our friend, Warren Lansdowne, who is Public Relations Chairman of the A.Ph.A. Committee, has defined public relations as "good performance which is known and appreciated by people." Obviously, to meet the terms of this definition requires that hospital pharmacists perform well and do it in such a way that people know and appreciate their performances. Besides encouraging our members to perform well the SOCIETY must have an organized program of public relations. During the last two or three years the recommendation has been made at the convention that the Committee on Program and Public Relations be separated into two committees. This presents a problem in that it would require a change of the Constitution and By-Laws. I have personally been most intimately concerned with this matter. It would seem to me that there are at least two functions concerned with public relations. One is to devise a specific program and the other to implement the program. There are some disadvantages to having a committee implement a public relations program because of the lack of continuity which is imperative. I would appreciate comments either from the Executive Committee or the House of Delegates in this matter; but assuming there is nothing we can do in the way of reorganization for the coming year, we will ask that our Committee on Program and Public Relations continue as in the past. The Committee's specific responsibilities should be to develop a long-range public relations program directed toward the several groups whom we are interested in acquainting with our performance and submitting it to the Executive Committee. Secondly, to devise a public relations program which could be effected through the affiliated chapters. There are many hospital pharmacists who are doing a magnificent job in their committees and who are not appreciated by the people in the communities. A public relations program would show methods of bringing this to the attention of the community. This does not necessarily mean publicity though such could be a part of the program.

One of our members recently wrote a paper on economic poisons to present before the Lion's Club in his town. It was so presented that it was soon requested by the PTA, women's clubs and other civic organizations. Within a few months, this hospital pharmacist had made quite a reputation for himself and had achieved an amazing amount of publicity. Several newspapers carried feature stories about him and the words "hospital pharmacy" were given good play. As a result, he was given an award by his state pharmaceutical association for community service. This person was probably not a terrific speaker, nor do I imagine he hired a speech writer, but he told a story of interest to the people in his community and they came to know of his work as a hospital pharmacist.

A public relations program could be developed with little effort for the affiliated chapters whereby individual pharmacists could expand their potential on home ground. This would also give these pharmacists greater opportunities to participate in civic affairs. This, to me, is a good example of public relations at its best.

Another responsibility of this Committee concerns recruiting for hospital pharmacy. In other words, we must increase the number of pharmacists who are practicing in hospitals by design rather than by accident. It is my hope that within the coming year, we can develop a career booklet which is directed at pharmacy students to encourage them to pursue hospital pharmacy on a career basis. Actually, I should have completed this job during the past year, but will at this point admit failure. A survey has recently been published which was made to collect factual data for this publication. I would suggest that the booklet be published in THE BULLETIN as a regular feature and that the layout be made in such a way that the booklet could be printed with the same type and a cover added. This would keep the expense of such a project at a minimum.

Still another area concerns providing material for pharmacists through their affiliated chapters which could be used for making presentations on career nights in their local high schools. This is a community service which is becoming increasingly popular throughout the country and hospital pharmacists should take every opportunity to use the advantages it provides.

Laws and Legislation

Our next major concern is with the matter of pharmacy laws, regulations and legislation. I have had occasion to read a copy of the report which Mr. Arthur Dodds will give you tomorrow. I would like to commend Mr. Dodds and his Committee on the remarkable accomplishments they have made and to direct your special attention to his work. It will be recommended that the By-Laws of the SOCIETY be changed to include a new standing committee to be called the "Hospital Pharmacy Law, Regulations and Legislative Committee." This seems to me like an unusually sound idea and I would again invite the comments of the House of Delegates in this matter. Again assuming that it would not be possible to make such a change immediately, I would suggest that we change the name of the Committee as Mr. Dodds has suggested, and we would kindly ask that he continue the present program and serve as Chairman of the Committee during the coming year.

Radioisotopes

Another Committee which deserves special commendation is the one on radioisotopes. Again I have been personally concerned about this facet of hospital pharmacy practice and frankly believe that the professional skills of the hospital pharmacist can be effectively utilized in the clinical and research aspects of a radioisotope program in the hospital. This facet of our practice has received a tremendous amount of enthusiasm from the

members of our SOCIETY, and I would strongly urge that our Committee, in the coming year, concern itself with every opportunity to include this topic on the programs of local, regional and national meetings. In order that hospital pharmacists will be capable of assuming the responsibility for radioisotope programs, it will be necessary for them to be trained in the techniques and at every point possible encourage their confidence to do so. I am asking that Peter Solyom assume the responsibility for this Committee during the coming year.

Small Hospitals

Now to the matter of extending pharmacy service in small hospitals. A committee was established in 1952 to study this matter. Mr. Foster has been especially concerned about this problem and has done an outstanding job. He has recommended in his report this year that the committee be dissolved because he believes that it has done all it can do due to lack of funds and personnel to proceed further. He implied that the number of programs which have been devoted to this subject and the "audit of pharmaceutical services in hospitals," which was recently granted to the American Pharmaceutical Association by the Public Health Service, had contributed to some success in this direction. I hope that the House of Delegates will see fit to discuss this matter further before abandoning this committee. It is my personal opinion that any hospitalized patient deserves the benefit of good pharmacy service regardless of the size of the institution in which his illness may be treated. It seems obvious that such service cannot always be provided by a pharmacist on the staff of the hospital. Therefore, the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS has the obligation to render whatever assistance is possible to assure the patient of receiving good pharmacy service. Actually, this is no small matter because we are talking about a very large proportion of the total number of hospital beds available in the United States. I would like to submit for your consideration a proposal for our SOCIETY to recommend some specific procedure whereby this service can be provided by retail pharmacists to community hospitals which are not large enough to support a pharmacist on the staff. Regardless of the direction your discussions take, I will not be disappointed; however, I simply feel that this is a professional responsibility which we should not overlook.

Economic Poisons

Another matter of professional importance is that of economic poisons. We will have presented before this Convention one of the finest reports I have seen from any Committee in the organization. This is a matter in which every hospital pharmacist should feel keenly responsible to his own community. Already a very large amount of detail work has been done and in asking Miss Clara Henry to again accept the responsibility for the chairmanship of this committee, I would propose two specific programs. The first concerns evolving a more specific relationship with the Committee on Toxicology of the American Medical Association, the American Academy of Pediatrics and the American Association of Public Health. Each of these organizations is vitally interested in this problem; however, to my knowledge, no organizational plan has been developed for the specific responsibility each would assume in carrying this program forward. Secondly, I would propose that this Committee assume the responsibility for studying a method to compile and distribute specific information to any hospital pharmacist who desired it for developing and implementing a program in his own community.

The Bulletin

Certainly we would be remiss in any discussion of improvements and growth of the professional specialty if we did not mention THE BULLETIN. Actually, Dr. Francke and Miss Niemeyer have been so personally concerned with this publication that it becomes difficult for us to suggest improvements. The character and reputation of THE BULLETIN itself attests to this. However, Dr. Francke outlined a long-range publications program at the November 1955 meeting of the Executive Committee. This program was discussed in detail and I would ask that Sister Berenice assume the responsibility of Chairmanship of the Committee on Publications during the coming year and extend every effort toward progress on this program.

Examinations

In 1954 President Archambault established a Committee to provide examination material in the field of hospital pharmacy. Since that time a very large number of "test items" have been forwarded to the American Public Health Association for consideration and use. The Committee proposes an expanded usefulness of this material and I am asking Dr. Clifton Lord to assume the Chairmanship of the Committee during the coming year to continue the work.

Last, but certainly not least, of the professional problems concerns the matter of a code of ethics for our professional specialty. We are fortunate that Dr. Archambault has chosen to develop this subject on the occasion of his receiving the H. A. K. Whitney Award tomorrow evening. This is an extremely important program for our professional growth and it is anticipated that we will take specific action on the matter during this convention.

Organization

And now to matters of the SOCIETY as an organization. It is in these things that I propose our especially diligent interest during the coming year. First is the matter of affiliated chapters. During recent months, Miss Niemeyer and her staff in our Washington Office have compiled membership statistics concerning a number of the chapters. These statistics are both enlightening and in some respects depressing; but, at any rate, I believe the affiliated chapters are the heart of our SOCIETY and the potential source of our greatest progress in the years to come. It seems that for the present time, any problems relating to these groups could be referred to our standing Committee on Membership and Organization. I have asked Mr. Robert Bogash to serve as Chairman of this Committee, and I am sure you will agree that he is one of the most capable young people in hospital pharmacy today. Further, Bob and I have felt that the work could proceed best by naming two sub-committees, each to be directed by members of the SOCIETY who are known to be tireless workers who invariably produce results. As Chairman of the Subcommittee on Organization, we have named Walter Frazier, and as Chairman of the Subcommittee on Membership, we have asked Miss Adela Schneider to assume the leadership. Actually, I feel quite incapable of adequately defining all aspects of the study which should be given to the matter of affiliated chapters. I will attempt to mention only a few areas. Since these groups are the source of our membership, it seems reasonable that there should be some facility for making contact with and providing participation for any hospital pharmacist in any section of the United States down to the last square mile. As you know, at the present time, our affiliated chapters are located in whatever areas enough interest happened to have been generated to form a chapter which had a membership of 10 active members Numerous instances of the inadequacy of such a plan have been evident in the last few years. For instance, the Utah Society and the Mississippi Society had some difficulty in organization simply because they did not have an adequate number of members in their area to organize a group. Chapters which have become organized under such adverse circumstances have, in some instances, made more progress than those in metropolitan areas. It would then seem advisable that some facility be made to provide opportunity for any pharmacist in the United States to participate. Let's think for a moment about the Illinois chapter as an example of how this problem might be resolved. The State of Illinois is approximately 450 miles in length. For several years, a local chapter has been organized in the Chicago area and relatively few hospital pharmacists have participated outside the area. In a recent revision of the Constitution and By-Laws, we were concerned with whether this chapter should be related only to the Chicago area or to the entire state. Since it is unreasonable to expect that the pharmacists practicing in the more distant areas would be able to attend meetings, we attempted to think of all the hospital pharmacists in the state as being responsible to our group. We hope that in the coming year, we will be able to provide them with information concerning the activity of our chapter and wherever possible to assist in the organization of some method to carry on small local programs. This need has been met in other areas through the organization of regional chapters where all would meet together perhaps once a year for a seminar. Perhaps we should be concerned with specific boundaries of responsibility for the various chapters. This might be accomplished by simply drawing boundary lines on a map and asking the chapters in the particular area to assume a broader responsibility or in some instances it may be advisable to establish new chapters.

Affiliated Chapters

We should also be interested in the type of activity pursued in the various affiliated chapters. One outstanding step in this direction was made when Walter Frazier suggested the Committee on Special Projects. This Committee has had considerable influence to make the activity of the chapters purposeful. For instance, it might not be unusual that a given group should fall into a situation in which all the members simply expect to attend a meeting perhaps once a month and be entertained by a speaker or otherwise. In other words, though they may have problems concerning pharmacy practice in their individual hospitals, no concern may be given to these problems in their

organizational work. Actually it might be found that several hospitals in a given area have common problems and that by discussing them in groups there would be opportunity for either resolving them or assimilating all aspects of them so that they might be referred to another group or to the national organization. It seems to me that this type of activity in the local chapters could lead to a more adequate consideration of problems on the national level. Conversely there may be a need for the implementation of national programs on the local level.

House of Delegates

There are also several factors concerning the House of Delegates. It is not unlikely that some of you who are delegates today are attending your first convention. Regardless of the number you may have attended, if you have not followed all aspects of SOCIETY activity very closely, then it is possible that you may have insufficient background to be able to discuss some of the major considerations that come before this group. As I have discussed matters with you this afternoon I find that there is only time to mention briefly so many of the items which individually could well occupy two or three hours' time. Thus, it may be necessary to consider extending the time for meetings of the House of Delegates. Obviously such measures would have to be coordinated with the total Convention program.

According to our present By-Laws the purpose of the House of Delegates is to assist the Executive Committee in the formulation of policy. This was to provide an opportunity for each affiliated chapter, through its delegates, to present comments and recommendations on local and national matters pertaining to hospital pharmacy practice. The fact that the purpose of the House of Delegates has not been achieved in recent years depends to some extent upon the fact that there has been inadequate representation of the local groups. This is no doubt due to the fact that the delegates in most instances are expected to pay their own expenses. I would strongly urge each affiliated chapter to attempt to pay the expenses of their delegates to the convention for two reasons. First, they would be assured of having representation at the Convention and secondly, the effort necessary to raise the money for such a project would go far toward coordinating and developing the interest in convention affairs. I would suggest that our Subcommittee on Organization study this matter during the coming year and I sincerely hope will present a specific recommendation to the SOCIETY to improve the House of Delegates.

In assuming the responsibility as your President for the coming year, I have found it more difficult than I had expected to be adequately able to consider all the matters necessary. In fact, I would have been at a complete loss had it not been for the assistance of Miss Niemeyer, the past officers and others who are more experienced in these matters. Actually, I believe that our Subcommittee on Organization should think seriously during the coming year about some plan. As you know, the majority for the Executive Committee is controlled by the incoming President and his appointees as chairmen of the standing committees. Therefore, in making the appointments to the chairmanship of these various committees it is necessary to consider not only the willingness or ability of the individual to accomplish the work outlined by the committee, but also the length of time he has been active in SOCIETY affairs because otherwise the members of the Executive Committee could have little or no background in discussing SOCIETY policy. The result of this situation is that not infrequently the Executive Committee spends more time reviewing the background of the various problems which arise than it does making decisions concerning the problem at hand. I have no answer to these problems, but it does seem that consideration for continuity of the Executive Committee would be in order. For instance, our organizational plan might be compared with that of the American Pharmaceutical Association, the American Hospital Association, the American Medical Association, etc.

Membership

One topic that can always be found in the record of the plans of each new President is that of membership. This is as it should be, because it certainly is the most outstanding facet of our work from year to year. I have complete confidence in the fact that there will be no less an emphasis on membership during this year, 1956-1957. The reputation of the Chairman of our Committee attests to this and in fact I will leave it up to our membership chairman to set her own goal and develop her own techniques.

There is one other matter which I hope the Membership Subcommittee will consider during the year. That is the associates in our SOCIETY, their number, their importance to us and the emphasis our members should use in trying to encourage their affiliation. As you know, the greatest potential here is among the professional service representatives of the pharmaceutical industry. According to the current membership report we now have 351 such associate members. I believe we have an obligation to ourselves to make some statement of policy relative to such memberships.

There are many other activities that I have not mentioned but which by omission are of no less importance. For instance, one of the most significant is the work of the Committee on Pharmacy and Pharmaceuticals and the American Hospital Formulary Service were not considered. Provision has been made in other aspects of the convention program to keep you informed regarding several of these important matters in which we continuously seek your enthusiastic participation. Like every person who has been in this position during the history of the SOCIETY, I feel that this year will be one of the most important that we have yet experienced. To accomplish the most for the advancement of hospital pharmacy and our SOCIETY, I humbly solicit your wholehearted support and your active participation.

report of the Thirteenth Annual Meeting

April 9-10, 1956

GLORIA NIEMEYER, *Secretary*

The Thirteenth Annual Meeting of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS was held at the Hotel Statler in Detroit, Michigan, on April 9 and 10, 1956, in conjunction with the Convention of the American Pharmaceutical Association. Approximately 200 members of the SOCIETY were in attendance.

The ASHP House of Delegates had met on the previous day with representation from thirty-four of the affiliated chapters represented by thirty-seven delegates. Included also as delegates were eight members of the Executive Committee and six Chairmen of Special Committees, making a total of fifty-one members in the 1956 House of Delegates. (See page 363 for Report of the Meeting of the House of Delegates.)

Note should be made of the entertainment and special events sponsored by the Michigan Society of Hospital Pharmacists during the week of the Annual Meeting. Details of the activities including the Sunday afternoon buffet, and the H.A.K. Whitney Award Dinner held on Monday night, are included in the story of the Annual Meeting appearing in the May-June (1956) issue of THE BULLETIN.

First Session

The first session of the Thirteenth Annual Meeting was called to order by President Claude Busick on Monday, April 9, at 9:00 A.M. The meeting was opened with an invocation by Rev. Eugene A. Beyer.

Since the minutes of the Twelfth Annual Meeting were published in THE BULLETIN (July-August, 1955), it was moved, seconded and carried that the reading of the minutes be dispensed with.

The President then called for communications and the Secretary indicated that resolutions received from affiliated chapters and individuals had been turned over to the Committee on Resolutions. Also, communications in the form of telegrams were read from Mr. James McKinley and Mr. Robert Bogash.

President Busick then made the following appointments which had already been announced in the meeting of the House of Delegates on the previous day:

Committee on Resolutions: George F. Archambault, *Chairman;* Paul Parker; and Sister Mary Rebecca. *Assistants to Committee*: Robert Bogash, Clifton Latiolais, and Sister Mary Jeanette.

Committee on Nominations: Grover C. Bowles, *Chairman;* Evlyn Gray Scott; and William Heller.

At this point, President Busick called on the following fraternal delegates who brought greetings from the chiefs of each of the services and commented on the activities of the SOCIETY: Major William L. Austin, Department of the Army; Major Raymond Haas, Department of the Air

Force; Vernon O. Trygstad, Veterans Administration; Captain William C. Calkins, Department of the Navy; and George F. Archambault, representing the U. S. Public Health Service.

President Busick then called on Mr. Jack Heinz, President of the American Pharmaceutical Association, to bring greetings. Mr. Heinz was not present and was called on later during the ASHP sessions. Mr. John MacCartney, President-Elect of the A. Ph.A., was introduced and commented briefly on the work of the SOCIETY.

Other introductions included Mr. Harold Taylor, President of the Michigan Society of Hospital Pharmacists, Mr. Don Melcher, Chairman of the local Convention Committee representing the Michigan Society, and Miss Love Chabak, Secretary of the Canadian Society of Hospital Pharmacists.

Also introduced at this time were all of the past officers of the SOCIETY in attendance at this Annual Meeting. These included Don E. Francke, I. Thomas Reamer, Sister Mary John, Jennie Banning, John J. Zugich, Leo F. Godley, W. Arthur Purdum, Geraldine Stockert, Herbert L. Flack, Gloria Niemeyer, Grover C. Bowles, Sister M. Jeanette, Jane Rogan, Sister Mary Raphael, George Phillips, Sister Mary Florentine, Allen V. R. Beck, George F. Archambault, and Sister Mary Berenice. Mr. H.A.K. Whitney, first chairman of the ASHP, was also present for the H.A.K. Whitney Award Dinner on Monday night.

Reports of the various committees and officers were then presented and it was pointed out by the Secretary that, to the extent possible, all reports had been made available in mimeographed form. Complete sets of these were distributed to the members of the House of Delegates at the Sunday meeting. In case of long reports, it was requested that these be presented in abstract. Reports were presented in the following order: Committee on Program and Public Relations, Leo F. Godley, *Chairman*; Committee on Minimum Standards, W. Arthur Purdum, *Chairman*; Committee on Pharmacists in Government Service, presented by Milton W. Skolaut in the absence of Charles Towne, *Chairman*; (Mr. Skolaut also took this opportunity to report on the activities of the overall Committee on Pharmacists in Government Service on which he serves as one of the A.Ph.A. representatives); Committee on Membership and Organization, presented by Gloria Niemeyer in the absence of James McKinley, *Chairman*; Committee to Study the Role of Pharmacy in the Small Hospitals, presented by Marjorie O'Boyle in the absence of Thomas Foster, *Chairman*; Committee on Special Projects, presented by Gloria Niemeyer in the absence of Henry Beard, *Chairman*; Committee on Historical Records, Alex Berman, *Chairman*.

Following his report, Dr. Berman, acting as Secretary of the American Institute of the History of Pharmacy, presented awards to two hospital pharmacists for contributions on the history of their respective affiliated chapters. The awards, including a two year membership in the American Institute of the History of Pharmacy along with an autographed copy of the book entitled *"Pharmacy's Part in Society,"* were presented to Mr. William Whitcomb, of the Rochester Area Society of Hospital Pharmacists and to Miss Doris Hawkins (in absentia) of the Arizona Society of Hospital Pharmacists.

Presentation of additional committee reports were presented in the following order: Committee on Narcotics, Hypnotics, Ethyl Alcohol, etc., Arthur W. Dodds, *Chairman*; Committee on Disaster Preparedness, Ludwig Pesa, *Chairman*; Committee on Pharmacy Operated Central Sterile Supply Services, Milton Skolaut, *Chairman*; Committee on International Hospital Pharmacy Activities, Don E. Francke, *Chairman*; Advisory Committee on Hospital Pharmacy Examination, presented by Gloria Niemeyer in the absence of Richard Sherwood, *Chairman*; Committee on Economic Poisons, Clara Henry, *Chairman*; and Committee on Isotopes, Clifton Latiolais, *Chairman*.

President Busick then called for a motion to receive the reports and refer the recommendations to the Committee on Resolutions. Such a motion was made by Don Francke, seconded by Basil Ketcham, and carried.

President Busick then introduced Mr. J. Warren Lansdowne, Chairman of the A.Ph.A.'s Committee on Public Relations. Mr. Lansdowne commented on the participation by hospital pharmacists in National Hospital Week and National Pharmacy Week. At this time the award for the best display by hospital pharmacists during National Hospital Week, was presented to Sister Mary Jeanette, Chief Pharmacist at Mary Immaculate Hospital, Jamaica, New York. On presenting the award, Mr. Lansdowne commented on Sister Mary Jeanette's many honors and the fact that she has served hospital pharmacy for forty-seven years.

A short recess was called following which the report of the Treasurer was presented by Sister Mary Rebecca. Following the report it was moved, seconded and carried that it be accepted as read.

At this point, Dr. Robert P. Fischelis, Chairman of the Policy Committee of the Division of Hospital Pharmacy and Secretary of the American Pharmaceutical Association, was introduced. He presented the report on activities of the Policy Committee and indicated that Dr. Francke would report on the details of Division activities, with particular reference to the Audit of Pharmaceutical Services. Dr. Francke's Report, as Director of the Division of Hospital Pharmacy, was then presented. The full reports begin on page 383 of this issue of THE BULLETIN.

Secretary Niemeyer was then called upon to give the Annual Report covering activities carried out in the Office of the Secretary.

Vice-President Milton Skolaut then took over the chair and introduced President Claude Busick for the Address of the President.

The meeting adjourned at 12:15 P.M.

Second Session

The second session of the 1956 Annual Meeting was opened by President Busick on Monday, April 9, at 2:00 P.M. Announcements were made and the president called for unfinished business, of which there was none. The meeting was then turned over to Mr. Leo Godley, Chairman of the Committee on Program and Public Relations. The following papers were presented during the afternoon session:

"Recording and Reporting Drug Reactions," by Irvin Kerlan.

"And What About Administrative Procedures?" by M. R. Kneifl.

"A Description and Personal Evaluation of the Course in Radioisotopes for Hospital Pharmacists," by Evlyn Gray Scott.

"The A.H.A. and Its Interest in Hospital Pharmacy," by Sarah Hardwicke.

"Equipment and Supply Sources for the Hospital Pharmacist," by Ralph S. Murphy, Jr. and Herbert L. Flack (presented by Ugo Caruso).

The second session adjourned at 4:45 P.M.

Third Session

The third session of the 1956 Annual Meeting was called to order at 9:05 A.M. on Tuesday, April 10, 1956. There being no unfinished business, the meeting was turned over to Mr. Leo Godley, who presented the following program:

"An Emergency Drug Room for Handling After Hour Requests," by Richard G. Henry.

"Development of a Germicidal Soap containing Bithionol," by S. H. Hopper and K. M. Wood.

"A Report on the Development of the Society's Committee on Pharmacy and Pharmaceuticals," by William Heller.

"A Study of Parenteral Solutions Made by Hospital Pharmacists," by Irene Olynk, P. F. Belcastro, and G. J. Sperandio.

"The Development and Evolution of Hospital Formularies," by Alex Berman.

"A Sixteen Point Program for Promoting Professional and Public Relations by Hospital Pharmacists," by Robert A. Walsh and William E. Hassan.

"Labeling Responsibilities of the Pharmacist," by James W. Mitchener.

"The Function of the Formulary and Therapeutic Guide of the Toledo Academy of Medicine," by Henry Z. Sempowski.

"The Effects of Vitamins and Other Drugs on the Blood Pressure of Laboratory Animals," by Sheldon J. Schwartz, Earl P. Collins, and Phillip V. Hammond.

"Polyvinylpyrrolidone Iodine—A Three Year Observation As a Topical Antiseptic," by Robert Bogash.

"Audio-Visual Aids for Teaching Hospital Pharmacy Administration," by Herbert L. Flack.

The Tuesday morning session adjourned at 12:00 noon.

Fourth Session

The fourth and final session of the ASHP Annual Meeting convened at 2:30 P.M. The meeting was turned over to Mr. Leo Godley and he introduced speakers to present the following papers:

"The New System for Evaluation of Drugs by the Council on Pharmacy and Chemistry of the American Medical Association," by H. D. Kautz.

Mr. Godley then introduced a panel discussion on "Introducing and Interviewing Graduate Students and New Graduates in Hospital Pharmacy." The moderators were Mr. Herbert L. Flack and Mrs. Evlyn Gray Scott with interns in hospital pharmacy or recent graduates of internship programs participating.

This concluded the program and after thanking the participants and the audience, Mr. Godley turned the meeting back to President Busick for the final business session. President Busick called on Mr. Grover C. Bowles, Chairman of the Committee on Nominations for the report. Mr. Bowles presented the following nominations:

For President: Leo F. Godley, Bronson Methodist Hospital, Kalamazoo, Mich. and Charles G. Towne, Veterans Administration Center, Los Angeles, Calif. *For Vice President*: Charles Barnett, St. Luke's Hospital, Jacksonville, Fla. and Ludwig Pesa, St. Mary's Hospital, Passaic, N. J.

The Chairman of the Committee on Nominations also announced the fact that the Secretary and Treasurer are elected for three-year terms and neither are subject to re-election this year.

Following presentation of the report,

it was moved, seconded and carried that it be accepted. President Busick then called for nominations from the floor for President. It was moved, seconded and carried that nominations for the presidency be closed. On calling for nominations for the vice presidency, it was moved, seconded and carried that nominations be closed.

President Busick then called on the Chairman of the Committee on Resolutions, Dr. George Archambault, for the report. Dr. Archambault prefaced his remarks with the fact that the Resolutions Committee had worked under very difficult circumstances and that the resolutions would be presented by the three members of the Committee, that is Sister Mary Rebecca, Mr. Paul Parker, and himself.

A verbatim report of the discussions and actions on resolutions is available. However, for the sake of brevity and clarity, only the final resolutions as passed by the membership are being published. These appear on page 364 in three sections, that is, Resolutions For Implementation, and Resolutions Referred to the Executive Committe and Resolutions of Appreciation. Those matters referred to the Executive Committee will be called to the attention of the members immediately and will be considered at the fall meeting.

A number of resolutions were also introduced on which no action was taken. As a matter of record, these covered the following subjects: approval of the forms incorporated in the Report on Narcotics, (from Committee report); use of single dose closed system for injectibles (from President's Address); establishment of special membership category for draftee pharmacists in armed services (from Committee Report); and discontinuance of Committee to Study Role of Pharmacists in Small Hospitals (from Committee Report).

Following the Report of the Committee on Resolutions, President Busick thanked the members and called on Secretary Niemeyer who commented briefly on the possibility of having the Whitney Award Dinner in conjunction with the Annual Meeting. This had been suggested by several members during the week as a result of the successful dinner held during this Convention. Mr. Flack called attention to the fact that we should also consider the possibility of continuing the breakfast which has usually been held on Tuesday of the Annual Meeting. By a show of hands it was agreed that the majority of those in attendance at this Annual Meeting prefered to have both the breakfast and a dinner in connection with the Annual Meeting.

At this point President Busick asked Sister Mary Rebecca to introduce Sister Mary Berenice who will assume duties as Treasurer for the next three years. Sister Mary Berenice commented briefly and President Busick introduced the incoming Vice-President, Milton W. Skolaut. Following remarks by Mr. Skolaut, President Busick introduced the President for the 1956-1957 term, Mr. Paul Parker. Following presentation of the gavel to Mr. Parker, he commented briefly on the activities during the coming year and announced the chairmen for the various committees.

The gavel was turned back to Mr. Busick who called for adjournment at 6:45 P.M.

report of House of Delegates

April 8, 1956

GLORIA NIEMEYER, *Secretary*

The Seventh Annual Meeting of the House of Delegates of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS was called to order by President Claude Busick at 2:15 P.M. on Sunday, April 8 at the Hotel Statler in Detroit, Michigan. Sister Mary Berenice, St. Mary's Hospital, St. Louis, Missouri, delivered the invocation. President Busick welcomed the delegates, outlined the purpose of the House of Delegates, and commented on the agenda for the afternoon's program.

Since the minutes of the previous meeting had been printed in THE BULLETIN, the chairman asked for a motion that they be accepted as presented. On the motion of Grover Bowles, a second by William Heller and carried, reading of the minutes of the 1955 Meeting of the House of Delegates was dispensed with and the minutes accepted as printed.

President Busick called on Secretary Niemeyer for the roll call of official delegates. Thirty-four affiliated chapters were represented by 37 delegates. Included also as delegates were eight members of the Executive Committee and six chairmen of special committees making a total of 51 members in the 1956 House of Delegates.

The roll call of fraternal delegates representing the government services included Major William L. Austin, Department of the Army; Major Raymond Haas, Department of the Air Force; Vernon O. Trygstad, Veterans Administration; Captain Willard C. Calkins, Department of the Navy; and George F. Archambault, representing the U. S. Public Health Service. All of the fraternal delegates were present at the SOCIETY's sessions during the week and were introduced at the opportune time.

President Busick then called on Don Melcher, Chairman of the Local Convention Committee, to introduce members of the Michigan group actively participating in the plans of the ASHP Annual Meeting. Those introduced included Harry Lang, Chairman of the ASHP Suite; Harold Tayler, President of the Michigan Society of Hospital Pharmacists; Raymond McClarty, Chairman of the H.A.K. Whitney Award Dinner Committee; Mrs. Virginia Cross, Chairman of the Publicity Committee; Mrs. Helen Rutkowski, Chairman of the Sunday evening buffet; Mrs. Jane Rogan who presided at the H.A.K. Whitney Award Dinner; Pat Pauling, Recording Secretary of the Michigan Society. On introducing the Local Committee, Mr. Melcher outlined briefly plans for activities during the week and welcomed the delegates and members of the SOCIETY to Detroit.

At this point, President Busick called for a short break during which time a packet containing the Annual Reports was distributed to each delegate. Secretary Niemeyer pointed out to the delegates that these were being made available so that they would have complete reports to take back to their chapters. She also indicated that copies would be available for the membership at the time the reports are presented at the General Session on Monday. Further, complete proceedings of the Annual Meeting will be published in the July-August issue of THE BULLETIN. Affiliated chapters not having a delegate at the Annual Meeting will also receive the complete packet and these will be sent to the secretaries during the Convention Week.

In order to expedite the work of the committees during the Annual Meeting, President Busick announced the following appointments:

Committee on Resolutions: George F. Archambault, *Chairman;* Paul Parker, and Sister Mary Rebecca. *Assistants to Committee*: Robert Bogash, Clifton Latiolais, and Sister Mary Jeanette.

Committee on Nominations: Grover C. Bowles, *Chairman;* Evlyn Gray Scott; and William Heller.

Following appointment of the committees, the President asked for preliminary reports. These were presented by Sister Mary Rebecca representing the Committee on Resolutions and by Mr. Grover Bowles, Chairman of the Committee on Nominations. In each case, specific request was made for transmitting resolutions and suggestions for nominations to the members of the committees immediately.

Mr. Bowles referred particularly to the growing needs of the SOCIETY and our responsibilities in selecting officers who are in a position to carry on leadership in the SOCIETY.

President Busick then introduced the President-Elect, Paul Parker, for his Address. Mr. Parker outlined in detail the proposed future activities for the SOCIETY and referred specifically to the work of each Committee. The complete text of his address appears on page 358 of this issue of THE BULLETIN.

Following the address of the president-elect, several announcements were made regarding activities of interest to hospital pharmacists during the Convention Week. This was followed by a brief recess.

The meeting was then called to order and President Busick announced that an open discussion concerning the role of affiliated chapters in the SOCIETY and the organizational structure of the ASHP would be presented with Grover C. Bowles as moderator.

During this discussion, questions raised covered the relationship of state, local, and regional ASHP chapters to the national organization; the status of membership in the chapters; the need for studying the overlapping of various affiliated groups throughout the country; the work of the A.Ph.A. and ASHP in recruiting new members, with particular reference to the affiliated chapters; the problems of local chapters in connection with membership on both a local and national basis; ways of informing hospital pharmacists concerning the work of the national organization; cost of membership campaigns with reference to what both the A.Ph.A. and ASHP are doing; and programming; and other activities significant in the development of affiliated chapters.

Since the House of Delegates merely serves in an advisory capacity in connection with guiding the Executive Committee on policy matters, no action was taken. However, it was agreed that this session gave considerable background both to the delegates and to the members of the Executive Committee.

Following announcements, the meeting adjourned at 5:00 P.M.

. . . resolutions

passed at 1956 Annual Meeting

For Implementation

1

Joint Commission on Accreditation of Hospitals

WHEREAS the Joint Commission on the Accreditation of Hospitals has in its wisdom seen fit to place the pharmaceutical services of hospitals in the essential division; and

WHEREAS the Joint Commission on the Accreditation of Hospitals has incorporated this change in its recently revised hospital standards in the interest of better patient care; and

WHEREAS the Joint Commission on the Accreditation of Hospitals has recently recommended a restrictive policy with regard to the use of potentially dangerous drugs; now therefore be it

RESOLVED that the SOCIETY extend to the Joint Commission and its officials its sincere appreciation of this valued recognition; and be it further

RESOLVED that the SOCIETY pledge its whole-hearted support of these revised standards of the Joint Commission; and be it further

RESOLVED that a copy of these resolutions be sent to Dr. Kenneth Babcock, Director of the Commission.

2

Institutes on Hospital Pharmacy

WHEREAS Government hospital pharmacists have problems of special government and/or military nature; and

WHEREAS it is the responsibility of the SOCIETY to aid in the dissemination of information relative to all aspects of hospital pharmacy practice; now therefore be it

RESOLVED that the SOCIETY confer with the proper officials of the American Hospital Association relative to the advisability of including in Hospital Pharmacy Institutes one or more presentations in this area by responsible uniform service personnel.

3

Education

WHEREAS the five year course in pharmacy will soon become mandatory; now therefore be it

RESOLVED that colleges and schools of pharmacy be encouraged to make available in their undergraduate curricula courses leading to a major in hospital pharmacy.

4

Economic Poisons

WHEREAS the frequent occurrence of accidental poisoning is a serious problem; and

WHEREAS much can be accomplished to eliminate such accidents; now therefore be it

RESOLVED that the SOCIETY cooperate with all related health organizations which are interested in this problem; and be it further

RESOLVED that the SOCIETY cooperate with local and regional affiliated chapters to foster public educational programs concerning the dangers of accidental poisoning; and be it further

RESOLVED that the SOCIETY specifically request drug manufacturers to include more toxicological data in their product catalogs and literature.

5

A.A.C.P. Representation on Policy Committee

WHEREAS it has been recommended by the immediate Past President in his presidential address that the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS officially recognize the American Association of Colleges of Pharmacy in its Division activities; and

WHEREAS this SOCIETY at the 1955 Meeting of the House of Delegates in Miami was recorded as favoring such an alliance and recommended that the Secretary inform the Chairman of the Policy Committee of the Division of Hospital Pharmacy of the SOCIETY's position in this matter in order that said Chairman may explore with the A.Ph.A. and the A.A.C.P. the feasibility of such an alliance; and

WHEREAS to date no action has been taken on this matter by the A.Ph.A.; now therefore be it

RESOLVED that the SOCIETY be recorded as renewing its request on this matter and that suitable action be taken within the coming year.

6

Standardization of Drug Catalogs

WHEREAS the President in his presidential address has requested that official recognition be paid by this SOCIETY to the splendid work being done by drug manufacturers in the standardization of catalogs; and

WHEREAS we believe this to be a most valuable and useful service; now therefore be it

RESOLVED that the SOCIETY express its approval, as well as its appreciation, of the policy and that a copy of this resolution be sent to the secretaries of the drug manufacturers' associations for proper publicity to their respective members.

7

Professional Examinations

WHEREAS a uniform and accepted method of checking qualifications of applicants for positions in the field of hospital pharmacy is becoming mandatory; and

WHEREAS there are at present no such methods; and

WHEREAS this need could be relieved by making available a continuing flow of test items from specialists in the various phases of hospital pharmacy practice and administration; and

WHEREAS this material would be examined by the Professional Examination Service of the American Public Health Association for fairness and suitability in the evaluation of qualifications necessary and desirable in the candidates for responsible positions in hospital pharmacy; now therefore be it

RESOLVED that the activities of the SOCIETY in this connection be continued and that a request be made of the Professional Examination Service of the American Public Health Association to inform the SOCIETY of the need for and value of our contributions each year.

8

Narcotic Laws

WHEREAS the need for a clearly written exposition of narcotic laws and regulations as applicable to hospital administration is clearly evidenced by the number of inquiries received by the SOCIETY and others on this subject; now therefore be it

RESOLVED that this narcotic report, as submitted and when approved by the Federal Bureau of Narcotics, be referred *in toto* to the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association, the American Pharmaceutical Association, the American Medical Association, the American Nurses Association, and the national hospital journals with a request that proper publicity be given this important matter of hospital administration.

9

Adverse Drug Reactions

WHEREAS the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS has long felt the need for some form of recording and reporting adverse drug reactions in hospitals in the interest of better patient care; and

WHEREAS the Federal Food and Drug Administration has recently embarked upon such a program in cooperation with this SOCIETY, the American Society of Medical Record Librarians, and the American Medical Association; now therefore be it

RESOLVED that this SOCIETY commend the Federal Food and Drug Administration on this program and assure that Department of our continuing interest and cooperation; and be it further

RESOLVED that a copy of this resolution be transmitted to the Federal Food and Drug Commissioner.

10

Division of Hospital Pharmacy

WHEREAS the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS has made outstanding contributions to hospital pharmacy; and

WHEREAS there is a lack of appreciation of these contributions by many hospital pharmacists; now therefore be it

RESOLVED that the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS request the American Pharmaceutical Association to initiate a program to inform hospital pharmacists concerning these accomplishments.

11

Contributions to A.Ph.A. Building Fund

WHEREAS it has been recommended by the president in his

presidential address that the SOCIETY encourage the local affiliated chapters to participate in the A.Ph.A. Building Fund Drive; now therefore be it

RESOLVED that the SOCIETY be placed on record as in favor of such a resolution, and that the Secretary be instructed to transmit to the secretaries of the 45 local chapters a letter urging their contributions and including in such letter a summary of the many advantages accruing to hospital pharmacists by such participation.

12

Committee on Pharmacists in Small Hospitals

WHEREAS the Committee to Study the Role of Pharmacists in Small Hospitals is of the opinion that it would be most desirable to furnish the smaller hospitals of the nation with professional hospital pharmacy consultation service at the local level; and

WHEREAS it is believed that there is need for a demonstration of methods to coordinate hospital pharmacy services in smaller hospitals with those of the local teaching medical center, or a large local hospital with an active pharmacy department, or a local retail pharmacy; and

WHEREAS it is believed that such a demonstration could best be approved through the State Health agency in cooperation with the State Pharmaceutical Association, State Hospital Association, State Board of Pharmacy, State Society of Hospital Pharmacists, and the community practitioners of pharmacy in the immediate area; now therefore be it

RESOLVED that this SOCIETY explore the possibility of establishing such demonstration programs in the regional offices of the U.S.P.H.S. concerned with administering the Hill-Burton Act, that such demonstration be conducted by the Public Health Service Pharmacy Officers assigned to such offices and others, and that the ASHP and the A.Ph.A. explore further the necessity for a grant from the P.H.S. to study the need for this demonstration service for hospitals of 75 beds or less of the nation.

13

Participation in Hospital Meetings

WHEREAS it has been recommended by the President in his presidential address that the local chapters of the SOCIETY and the SOCIETY itself should be more active in the state, regional, and national hospital association activities; and

WHEREAS it is our belief that such representation will aid greatly in the development of better relations between hospital pharmacists and administrators; now therefore be it

RESOLVED that the SOCIETY be recorded as being in complete agreement with this philosophy; and be it further

RESOLVED that the ASHP explore with the American Hospital Association and the Catholic Hospital Association, the possibility of hospital pharmacists appearing on General Session Programs in a manner now afforded the nursing, dietetic, medical record librarian, and other disciples of the hospital team.

14

WHO Drug Program

WHEREAS the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS appreciates the continued progress made in the drug programs of the World Health Organization, as reflected in the publication of Volume II of the *International Pharmacopoeia*, in the recommendation of additional non-proprietary names for adoption by Member States, and the preparation of further biological standards; and

WHEREAS the SOCIETY recognizes that owing to this progress the importance and benefits of the WHO drug programs to hospital pharmacy continue to increase; and

WHEREAS these programs should be further accelerated to keep pace with the rapid advances of medical science and pharmacology; now therefore be it

RESOLVED that the SOCIETY urge that consideration be given to including provision in the annual WHO budgets for expansion of the WHO staff responsible for administering these international drug programs; and be it further

RESOLVED that a copy of this resolution be transmitted to the Surgeon General of the United States Public Health Service by the Secretary of the SOCIETY.

15

Central Sterile Supply

WHEREAS the Committee on Pharmacy Operated Central Sterile Supply Services recognizes that certain phases of its proposed activities may overlap those of the Committee on Minimum Standards; now therefore be it

RESOLVED that the Pharmacy Operated Central Sterile Supply Service activity be transferred to the Committee on Minimum Standards as a subcommittee, with its own chairman; and be it further

RESOLVED that the Committee on Minimum Standards consider and review the proposed syllabus prepared by the Committee on Pharmacy Operated Central Sterile Supply Services for the colleges of pharmacy course and incorporate this material into the Hospital Pharmacy Course as an elective, and be it further

RESOLVED that this Subcommittee's report be submitted at the next annual meeting.

16

Pharmacists in Government Service

WHEREAS the President of the SOCIETY in his presidential address has made a succinct statement relative to the use of pharmacists in Government service, namely:

"I have been somewhat surprised to learn that the profession of pharmacy is not recognized in the same manner as medicine, dentistry, nursing, and certain other health professions in the uniformed services; that all pharmacists engaged in professional pursuits in the uniformed services are not commissioned today except in the U.S. Public Health Service. I ask how is this rationalized? Does the law of supply and demand determine what category is to be commissioned in the armed services or are commissions to be based on health protection and needs? The staff dentist who stands at his chair all day—is he not commissioned? The nurse, who works on the hospital team with staff pharmacists—is she not commissioned? Why then are not staff hospital pharmacists commissioned in all services as they so properly are in the U.S. Public Health Service? In my opinion continued study and action is needed in this area by our parent association, the American Pharmaceutical Association. I, for one, do not believe in the "scarcity of numbers theory" nor in the theory that commissions are granted solely on a "supply and demand" basis. I believe that the health leaders of our armed forces expect and want the best in all phases of health for our fighting forces. I believe too, commissions are as necessary for pharmacists, in obtaining good care, as they are for physicians, dentists, and nurses. And recently I heard the male R. N. is now a commissioned officer. I believe firmly that commissions should be based on professional function and I submit the query—wherein is the hospital pharmacist lacking in this respect—that his associates are not lacking,—i.e. the nurse, the dentist, the physician and others of the health profession."; now therefore be it

RESOLVED that the SOCIETY transmit this statement to the A.Ph.A. for further action by the Committee on the Status of Pharmacists in Government Service; and be it further

RESOLVED that a copy of this resolution be sent by the SOCIETY to the Editor of the *Journal of Military Medicine* with a request that it be publicized in that journal.

17

Membership for Draftee Pharmacists

WHEREAS it has been recommended that a closer liaison may result through creating an expanded special membership in the A.Ph.A. for draftee pharmacists in the uniformed services; and

WHEREAS the Resolutions Committee is not in a position to determine the feasibility of such a program; now therefore be it

RESOLVED that this matter be referred by the SOCIETY to the American Pharmaceutical Association for consideration.

18

Student Membership Fee

WHEREAS there are increasing numbers of schools that are offering in the undergraduate curriculum the subject of hospital pharmacy, whatever it be titled, as either an elective or required subject for seniors; and

WHEREAS the American Pharmaceutical Association offers a student membership fee and allows the student to receive the A.Ph.A. journals, and attend the annual meetings; and

WHEREAS many state associations provide their journal free to senior students as part of complimentary membership for the duration of the senior year and then for three to four months remaining of a full twelve month year; now therefore be it

RESOLVED that this SOCIETY adopt a student membership rate at a reduced fee per year, which rate would include issues of the SOCIETY'S BULLETIN and would provide eligibility for membership in affiliated chapters; and be it further

RESOLVED that all affiliated chapters seek out those persons in the senior class in their respective schools of pharmacy, who are either interested in a future in hospital pharmacy practice and/or are enrolled in a senior course that pertains to hospital pharmacy practice, and offer them special non-voting privileges of membership in the affiliated chapter for the duration of the senior year and a short term thereafter; and be it further

RESOLVED that a copy of this resolution be directed to the attention of all officers of all affiliated and non-affiliated chapters for action.

19

Historical Records

WHEREAS it is important that there be recorded for posterity a factual chronological record of the activities of each of the chapters of the SOCIETY; and

WHEREAS the American Institute of the History of Pharmacy is keenly interested in obtaining and preserving this type of American pharmaceutical history; now therefore be it

RESOLVED that the SOCIETY through its Secretary develop with the American Institute of the History of Pharmacy a simple mimeographed brochure to be distributed to the chapters of the SOCIETY, which brochure shall be a guide to the writing of a history of the organization and growth of the local chapter; and be it further

RESOLVED that the Editor of THE BULLETIN consider publishing periodically requests for such histories and the Secretary, by personal communication with the Chapters, also request such histories for the SOCIETY's archives.

20

Hypnotic Legislation

WHEREAS the President in his presidential address has called attention to pending legislation relative to Federal Hypnotic Controls; and

WHEREAS the SOCIETY is conscious of the harm done by the indiscriminate use of such drug therapy agents; now therefore be it

RESOLVED that this SOCIETY go on record as favoring regulation of this type as a matter of *states rights only* and not as a matter of Federal concern at this time.

21

Action on Resolutions

WHEREAS it is difficult for the membership to follow the actions taken on the resolutions acted upon by the House of Delegates each year; and

WHEREAS it is essential that the active membership and the local chapters have an annual report on these activities; now therefore be it

RESOLVED that the Secretary of the SOCIETY report each year at the Annual Meeting of the House of Delegates the current status of all resolutions passed at the previous Annual Meeting of the SOCIETY.

22

Death of Oliver Steppig

WHEREAS hospital pharmacy has suffered a serious loss in the death of Oliver Steppig, one of our most faithful and distinguished members; and

WHEREAS his splendid professional contribution to our specialty of pharmacy and his unselfish service to the people of Missouri as a member of the State Board of Pharmacy is an outstanding example of devotion to ideals, and is a source of inspiration; now therefore be it

RESOLVED that the Secretary of the SOCIETY be instructed to express our deepest sympathy to the members of his family in their bereavement, and that a copy of this resolution be sent them.

Referred to Executive Committee

23

Narcotic Committee

RESOLVED that the resolution regarding narcotics passed at the 1955 Annual Meeting of the SOCIETY (See THE BULLETIN 12:400 (July-Aug. 1955), i.e. that copies of this Narcotic Report in final form be made available to hospital pharmacists and hospitals, be implemented as soon as possible by publication in THE BULLETIN, and by special reprints; and be it further

RESOLVED that this Narcotic Report in final form as approved by the Federal Narcotic Bureau be transmitted to the Schools of Medicine, Dentistry, Pharmacy, and Nursing of the Nation, secretaries of state medical boards, pharmacy boards, and hospital licensing boards with an appropriate covering letter.

The Committee on Resolutions endorses this resolution in principle but because of the details involved in the execution of this resolution, requests that this matter be referred *to the Executive Committee for action.*

24

Membership and Organization

WHEREAS Chapter IX, Article I of the By-Laws of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS requires that all active (voting and office-holding) members of the affiliated chapters shall be members of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS; and

WHEREAS a recent survey of the membership in some affiliated chapters indicates that a number of members do not meet this requirement; now therefore be it

RESOLVED that this matter be referred *to the Executive Committee* to study whether these affiliated chapters meet the requirements for affiliation; and be it further

RESOLVED that the Executive Committee take proper *action* to correct such inconsistencies.

25

Narcotic Committee

WHEREAS it is the considered opinion of the Narcotic Committee that a special class or classes for hospital narcotic registrants is desirable; and

WHEREAS it is the opinion of this Committee that two such classes are necessary to resolve the problem—one special class for those hospitals employing full-time pharmacists and a second class for the smaller hospitals not employing a pharmacist; and

WHEREAS it is the opinion of the Committee that the first class should authorize the use of narcotics for administration to inpatients and for the dispensing of prescriptions to bona fide hospital outpatients; and

WHEREAS hospitals in the second class should be authorized for the use of narcotics administered to inpatients on a physician's order only; now therefore be it

RESOLVED that this suggestion be forwarded to the Bureau of Narcotics of the Federal government as a possible solution to this perplexing problem; and be it further

RESOLVED that if this proposal receives a tentative approval of the Narcotic Bureau that it be forwarded to the American Hospital Association, the Catholic Hospital Association, and the Protestant Hospital Association for their further study as to the feasability of this possible legislative solution to this long standing, vexing problem.

The Committee on Resolutions endorses this resolution and refers it *to the Executive Committee for action.*

26

Program on Internships

WHEREAS there is a real need for the dissemination of unrecorded information as it relates to hospital pharmacy internships and to related instruction carried on by the directors of hospital pharmacy internship programs; and

WHEREAS in the past Annual Meetings of this SOCIETY there has been no formal opportunity for such a dissemination; now therefore be it

RESOLVED that the Program Committee schedule a special meeting to involve such discussion, which meeting shall be held separate from the general programs and shall exclude any party having no interest in the hospital pharmacy internship programs.

Inasmuch as there are but four short general sessions of this SOCIETY at its Annual Meeting and inasmuch as it would be improper for this SOCIETY to unfairly encroach upon the program of the A.Ph.A. Convention, the Committee recommends that this resolution be referred *to the Executive Committee.*

27

Program on Parenteral Solutions

WHEREAS there is a real need for the dissemination of recorded and unrecorded information as it relates to the manufacture of small-volume and large-volume parenteral solutions in the hospital pharmacy; and

WHEREAS at previous Annual Meetings of this SOCIETY there has never been a formal opportunity for dissemination of the more recent information in this field; now therefore be it

RESOLVED that the Program Committee schedule a special meeting for such a discussion, which meeting shall be held separate from the general program and will exclude any party having commercial interests, and any party having no interest in the manufacture of small-volume and large-volume parenteral solutions.

Inasmuch as there are but four short general sessions of the SOCIETY at its Annual Meeting, and inasmuch as it would be improper to unfairly encroach upon the program of the A.Ph.A. Convention, it was moved that this resolution be referred *to the Executive Committee.*

28

Narcotic Committee

WHEREAS the Committee on Narcotics, Hypnotics, Ethyl Alcohol, etc. has been expanded in recent years to embrace the all-inclusive areas of laws, regulations, decisions, and dictum relative to hospital pharmacy and hospital administration practices; now therefore be it

RESOLVED that this Committee be dissolved and that a new standing Committee be created, this to be known as the Committee on Hospital Pharmacy Laws, Regulations, and Legislation, and that this new Committee continue the work of the present Committee.

The Committee on Resolutions is of the opinion that this is a most important resolution; the Committee strongly endorses

this resolution, but because of its impact on the Constitution and By-Laws of the SOCIETY recommends that this resolution be referred *to the Executive Committee for further study* with the comment that if no unforeseen complications arise, it should be implemented.

29

Committee on Program and Public Relations

WHEREAS it has been recommended by the Committee on Program and Public Relations that this Committee be divided into two committees—a Program Committee and a Public Relations Committee; now therefore be it

RESOLVED that this matter be referred *to the Executive Committee for further study* inasmuch as this resolution will necessitate a major change in the Constitution and By-Laws of the SOCIETY by changing the number of members of the Executive Committee.

30

Program

WHEREAS a considerable amount of program material for presentation at Annual Meetings has not been submitted; and

WHEREAS it seems advisable to establish a specific closing date for inclusion of such material in convention programs; now therefore be it

RESOLVED that the Secretary of the SOCIETY circularize a notice to prospective participants concerning the inclusion of papers in the convention program.

The Committee recommends that this resolution be referred *to the Executive Committee for further study.*

31

Membership and Organization

WHEREAS the affiliated chapters of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS have been active in obtaining new members; and

WHEREAS there is a need for an incentive plan for increasing such membership activity; now therefore be it

RESOLVED that the SOCIETY make an annual award during the Annual Meeting to the affiliated chapter which has shown the greatest percentage membership increase during the year.

The Committee recommends that this resolution be referred *to the Executive Committee for further study.*

32

Pamphlet to Administrators

WHEREAS the American Dietetic Association has prepared a commendable small pamphlet titled "Could a Trained Dietitian Assist You?"; and

WHEREAS this pamphlet is sent to hospital administrators with some success; and

WHEREAS there is need for some extensive continual mailing to hospital administrators in the smaller hospitals who have no full time pharmacist; now therefore be it

RESOLVED that the SOCIETY review this pamphlet and prepare a similar pamphlet and direct said pamphlet to administrators in hospitals which have no pharmacist.

The Committee recommends that this resolution be referred *to the Executive Committee for study.*

Of Appreciation

33

To American Pharmaceutical Association

RESOLVED that the SOCIETY express its sincere appreciation to the American Pharmaceutical Association and especially to its Executive Secretary, Dr. Robert P. Fischelis, and also to Dr. Don E. Francke, Director of the Division of Hospital Pharmacy, for the invaluable assistance given to hospital pharmacy and to the SOCIETY during the past year, and in particular for the splendid work of the Association in connection with membership and membership recruitments; and be it further

RESOLVED that the SOCIETY be recorded as being in appreciation of the appointment of Mr. Paul Parker to the position of Director of the Division of Hospital Pharmacy of the Association; and be it further

RESOLVED that the SOCIETY pledge itself to full continuing cooperation with the parent organization, the A.Ph.A.; and be it further

RESOLVED that a copy of these resolutions be forwarded to the Secretary of the A.Ph.A.

34

To American Hospital Association

RESOLVED that the SOCIETY extend its sincere appreciation to the American Hospital Association and in particular to Dr. Edwin Crosby, its Director, Mr. Ray Brown, its President, and to Dr. Sarah Hardwicke of the Council on Professional Practice, for their effective cooperation in furthering better hospital pharmacy practice; and be it further

RESOLVED that the Secretary of the SOCIETY be instructed to send a copy of this resolution to the individuals and organizations named above.

35

To Catholic Hospital Association

RESOLVED that the SOCIETY extend its sincere appreciation to the Catholic Hospital Association and in particular to Mr. Ray Kneifl, its Executive Secretary, for the activities of this Association in promoting better hospital pharmacy practice through the excellent institutes, promotion of National Pharmacy Week, and other devoted interests in our professional specialty; and be it further

RESOLVED that a copy of this resolution be transmitted to the Association and to Mr. Ray Kneifl.

36

To American Institute of the History of Pharmacy

WHEREAS the American Institute of the History of Pharmacy has been active in stimulating interest in recording for posterity the chronological history of the individual chapters of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS; and

WHEREAS the SOCIETY is of the opinion that this is a most meritorious activity; now therefore be it

RESOLVED that the SOCIETY express its appreciation to the American Institute of the History of Pharmacy for this valued service.

37

To Public Health Service

RESOLVED that the SOCIETY extend its sincere appreciation to the United States Public Health Service for the assistance given to the specialty of hospital pharmacy as evidenced by the recent grant made to the American Pharmaceutical Association for a study of pharmaceutical services in hospitals; and be it further

RESOLVED that a copy of this resolution be forwarded to Dr. Leonard A. Scheele, Surgeon General of the U.S. Public Health Service.

38

To Lederle Laboratories

WHEREAS there exists in hospital pharmacy a real need for research; and

WHEREAS Lederle Laboratories has seen fit to finance worthy research approved by the SOCIETY to the sum of $10,000 this year; now therefore be it

RESOLVED that the Secretary of the SOCIETY be instructed to express the appreciation of the SOCIETY and its members to Lederle Laboratories for their valued assistance in this direction; and be it further

RESOLVED that a copy of this resolution be forwarded by the Secretary of the SOCIETY to the Lederle Laboratories.

39

To Hospital Management

WHEREAS the journal, *Hospital Management*, has recently created a Pharmacy Section and appointed an outstanding hospital pharmacist as its editor; now therefore be it

RESOLVED that the Secretary of the SOCIETY be instructed to express our appreciation to Dr. Charles Letourneau, Editor of the journal, and his associates for this constructive approach to better hospital administration; and be it further

RESOLVED that a copy of this resolution be transmitted to Dr. Charles Letourneau.

40

To Michigan Society

RESOLVED that the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS extend a rising vote of thanks to the Committee on Program and Public Relations of the Michigan Society of Hospital Pharmacists for the excellent program arrangements, facilities, and courtesies extended to us in the grand city of Detroit.

41

To Don E. Francke and Gloria Niemeyer

In recognition and sincere appreciation for the excellent self-sacrificing contributions and untiring efforts in the interest of the SOCIETY and hospital pharmacy; now therefore be it

RESOLVED that the SOCIETY extend to Miss Gloria Niemeyer, Secretary of the SOCIETY, and to Dr. Don E. Francke, Editor of THE BULLETIN and Director of the Division of Hospital Pharmacy, a rising vote of thanks.

reports of Officers and Committees

Report of the Secretary

GLORIA NIEMEYER

Reporting to the membership at the Annual Meeting is somewhat of a duplication since we attempt to keep you informed during the year through our publication and other communications. However, in accordance with our Constitution and By-Laws, it is essential that an official record be made of SOCIETY activities and the various duties for which the Secretary is responsible. As mentioned in previous reports, duties of the office fall into a similar pattern each year. As policy matters arise and special activities are considered, these are taken up with the Executive Committee and much of the Secretary's activities are closely related to committee work which is reported to you by the various chairmen at the Annual Meeting.

One of our most important activities and the one project which requires the greatest amount of time is the work with membership and affiliated chapters. This could be divided into two parts—the routine work of handling renewals, new members, checking lists from ASHP affiliates, etc., and the continual effort being made to seek new members and keep in contact with the chapters. As you know, this work has been closely coordinated with membership activities in the American Pharmaceutical Association and Mrs. Virginia Dean, who is also a member of the Division staff, has continued to handle the day-to-day membership activities.

In addition to the regular routine, we have made increased efforts during the past year to closely coordinate the activities of the affiliated chapters with those of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. As a first step, we have attempted to determine actual participation of members of affiliated chapters in the SOCIETY and A.Ph.A. In doing this we have checked the membership of each chapter to determine (1) total active members of ASHP affiliated chapters; (2) total number of members of A.Ph.A. and ASHP; (3) members of affiliates who are members of the A.Ph.A. but *not* ASHP; and (4) members of affiliated chapters who are not members of both the A.Ph.A. and the ASHP. These figures give us rather significant information which can serve as a guide in planning for future SOCIETY activities and the role which affiliated chapters should take. In order that the delegates would have this information, we have made it available in mimeographed form. From the chart, one can determine the number of hospital pharmacists participating in affiliated chapters who are also members of the national organizations.

All those who were not members of the A.Ph.A. and the ASHP were sent invitations to join along with sample copies of our publications. It is difficult to give you specific results of this activity, but by coordinating our membership efforts with those of the affiliated chapters, we feel that this is a real contribution.

With regard to the significance of the figures, it is important to note that more than 1,500 or approximately three-fourths of our active members, are associated with the affiliated chapters. This would indicate that a great deal more emphasis could be placed on working with the local chapters and urging them to take a more active role in the affairs of the national organization.

It should be noted that checking the membership of the various groups and sending out invitations to join is quite a long, tedious task. In fact, we have had one additional person working on a half-time basis in the Division of Hospital Pharmacy for several months, spending most of her time on this one activity. We are, therefore, indebted to the American Pharmaceutical Association for making this project possible and presenting these statistics which are significant in planning for future SOCIETY activities.

In addition to the membership work, the SOCIETY activities which are handled by the Secretary include the routine mailing, election, notification of appointments, contacts with affiliated chapters, some BULLETIN work, coordinating committee activities, and a vast amount of correspondence. This work has been handled in accordance with the requirements of the Constitution and By-Laws.

Ballots for election of officers were mailed from the office of the Secretary to all active members of the SOCIETY. The Canvassing Committee, appointed by President Claude Busick, included Robert Simons, Memorial Hospital of Wilmington, Delaware; Robert Statler, Veterans Administration Central Office, Washington, D. C.; Benjamin Wexlar, Philadelphia General Hospital, Philadelphia, Pennsylvania; and John White, George Washington Hospital, Washington, D. C. Officers elected for the coming year include: President, Paul F. Parker; Vice-President, Milton Skolaut; and Treasurer, Sister M. Berenice. The Secretary was re-elected for a three-year term at the 1955 Annual Meeting. The Treasurer, elected to take office at the 1956 Annual Meeting, will serve a three-year term also.

Executive Committee Actions

Much of the SOCIETY's activity is carried on from Annual Meeting to Annual Meeting by the Executive Committee. The Secretary has worked closely with the members of this group who serve either as officers or chairmen of standing committees as well as members of the executive body. These individuals play an increasingly important role in the development of the SOCIETY and many of them give a great deal of time to this work.

From the viewpoint of the Secretary and the SOCIETY's membership, I would like to emphasize the importance of the work of the Executive Committee and the necessity for each member to take specific responsibility in relation to his position on the Committee. It is possible to hold only one meeting a year and this involves a great expenditure of SOCIETY funds. As a result, it is essential that the necessary time and thought be given to developing plans for projects and activities which are ahead of us. The Secretary and other officers and members of the Executive Committee must meet with members of the SOCIETY from time to time in order that they can be familiar with the thinking of hospital pharmacists and properly represent the membership as a whole. Meetings attended by the Secretary are recorded elsewhere in this report.

During the year, one meeting of the Executive Committee was held. This took place on November 11 and 12 at the Indiana University Medical Center in Indianapolis. All members of the Executive Committee were present. As a matter of record, I am listing the actions of the Executive Committee during the past year. These are as follows:

1. Proceeded toward implementing the Hospital Formulary Service which was approved by the SOCIETY at the 1955 Annual Meeting. This included—

—Approval of utilizing monographs from an existing formulary in order to proceed at an earlier date.

—Provision for financing the project for a temporary period.

—Acceptance of the name, "Committee on Pharmacy and Pharmaceuticals," and assignment to this Committee the responsibility of carrying out the Formulary Service as a part of its overall functions.

—Adoption of the name, "American Hospital Formulary—A Service Published Under the Direction of the Committee on Pharmacy and Pharmaceuticals of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS."

2. Accepted two new affiliated chapters of the ASHP. These include the Hospital Pharmacists' Association of Greater Kansas City and the Virginia Society of Hospital Pharmacists.

3. Reported activities in two additional chapters which plan to affiliate with the national organizations.

4. Heard progress reports on the development of a Career Booklet for hospital pharmacy which is expected to be available in 1956.

5. Reviewed progress on the Procedural Manual for Hospital Pharmacy which is being carried forward by the Joint Committee of the American Hospital Association and the ASHP.

6. Authorized the Committee on Minimum Standards to proceed with working out recommendations for the curriculum in hospital pharmacy in a five year course for presentation to the American Association of Colleges of Pharmacy.

7. Agreed to recommending hospital pharmacists to serve as members of the National Formulary's Advisory Committee on Preparations Used in Hospitals. Dr.

W. Arthur Purdum, already a member of the N.F. Committee, will head the Advisory Committee.

8. Appointed a Committee on Research and Investigation to study methods for handling funds, gifts, etc. made available to the Society.

9. Proceeded with developing plans for extending the Society's publications program.

10. Considered plans for the Annual Meeting to be held in Detroit during the week of April 8, 1956.

11. Suggested recommendations for the programs for the two institutes scheduled for 1956—one to be held in Austin, Tex. in June and one in Chicago in August.

12. Considered interim reports from the Chairmen of the Society's Special Committees.

13. Inaugurated plans for making needed changes in the Society's Constitution and By-Laws.

14. Developed plans for interesting pharmacists in government service in membership in the A.Ph.A. and ASHP.

The following additional actions were taken at a special meeting of the Executive Committee held in Detroit on April 8:

15. Voted to pledge $1,000 to the Building Fund of the American Pharmaceutical Association. This contribution is to be made in the name of the American Society of Hospital Pharmacists. Also, as noted in Resolution Number 11, the Society took action at the Annual Meeting asking that the local affiliated chapters of the ASHP be encouraged to participate in the A.Ph.A. Building Fund Drive.

16. Accepted the responsibility for the selection of recipients of funds under a grant made by the Lederle Laboratories Division of American Cyanamid. Funds are designated for research in the various aspects of pharmacy services in hospitals, and will be available to hospitals, and students in hospital pharmacy and related fields. The Executive Committee proceeded with plans for inaugurating the program with the appointment of a Committee on Research and Development.

Representation at Meetings

Although no specific plan has been worked out, the Secretary and other officers have always attended a number of the meetings of affiliated chapters each year. One gains a great deal by attending such meetings and this contributes considerably toward reaching some conclusions regarding the thinking of our membership on specific problems and the general outlook regarding the Society's work.

Since the May 1955 Convention, the Secretary has attended the following meetings:

Institute sponsored by the Catholic Hospital Association, St. Louis, Missouri, May.

Chicago Institute, University of Chicago Clinics, June.

Atlanta Institute, Emory University, August.

International Pharmaceutical Federation, Section of Hospital Pharmacists, London, September 19-22.

The Maryland Society of Hospital Pharmacists, Bethesda, October 21.

New Jersey Society of Hospital Pharmacists, Newark, N. J., October 22.

The New England Council of Hospital Pharmacists, November 2-3, Boston.

The Pharmacists' Section of the Maryland-District of Columbia-Delaware Hospital Association.

The Northern New Jersey Branch of the A.Ph.A., Newark, N. J., November 9.

Dallas Hospital Pharmacists, December 8.

Houston Area Society of Hospital Pharmacists, December 10.

Various Committee Meetings (Society and allied groups).

It should also be mentioned that in a number of cases other members of the Executive Committee have represented the Society. The President receives a number of special invitations and he handles each as he sees fit. As official invitations to various functions are received, the Secretary usually confers with another member of the Executive Committee to determine the advisability of having representation. In general, we try to depend on individuals who are in the particular areas.

Work With Allied Groups

It should be mentioned that the Society, through its officers, committee chairmen, and affiliated chapters, has worked closely with allied health groups and on numerous occasions, we have been invited to send representatives to meetings.

Of special note is the continuing work of the Division of Hospital Pharmacy of the A.Ph.A. and the ASHP and the fact that the Society has four representatives on the Policy Committee. Also, our work with the Joint Committee of the American Hospital Association and the American Society of Hospital Pharmacists has progressed. At the Mid-year Conference of the American College of Apothecaries held in Chicago in February, Mr. Paul Parker represented the Society. Also, at the February meeting of the Executive Committee, it was voted to make an annual contribution to the American Institute of the History of Pharmacy. Another activity is the appointment of an Advisory Committee on hospital pharmacy preparations of the National Formulary Committee. Dr. W. Arthur Purdum, already a member of the N. F. Committee, will serve as chairman and the work of this group will be closely coordinated with the work of the Society's Committee on Pharmacy and Pharmaceuticals. When the latter Committee met in Washington recently, the group had an opportunity to meet with Dr. Justin L. Powers, Chairman of the Committee on Revision of the National Formulary.

As many of you know, I will not be employed at the Headquarters of the American Pharmaceutical Association in Washington after April 15. However, arrangements have been made so that I can continue the present term as Secretary of the Society. I will be working closely with the A.Ph.A. Office in further coordinating the activities of the two organizations and in accordance with the agreement between the A.Ph.A. and the A.S.H.P., the routine membership activities along with other Society work will continue to be handled in the A. Ph.A. Offices. As recently announced by the Association, Mr. Paul Parker will head the Division of Hospital Pharmacy at A.Ph.A. Headquarters and since he will be President of the Society during the coming year, he will be closely affiliated with our activities.

Although I will no longer be at A.Ph.A. Headquarters, I do want to assure you of my continued interest and every effort will be made to provide continuity. When a definite program can be worked out for continuing the Secretary at A.Ph.A. Headquarters and there has been an opportunity for Executive Committee approval, I shall be glad to give my full support.

Appreciation

At this time, I wish to express my appreciation to the American Pharmaceutical Association and the staff at the Washington Headquarters. Through the Division of Hospital Pharmacy, the A.Ph.A. has contributed immeasurably to activities of the American Society of Hospital Pharmacists. I urge that the Society continue to work with the parent organization for the mutual betterment of hospital pharmacy and to the benefit of both organizations.

Also, to the members of the Society, to the individual committee chairmen and members, and to the officers and the Executive Committee, my thanks. It would not be possible to carry on the Society's activities without the individual contributions which are being made every day.

Report of the Treasurer

SISTER M. REBECCA

Comments by Sister M. Rebecca on presenting the Report of the Treasurer:

In keeping with the wishes of the Society this report covers one full calender year, i.e., from January 1, 1955 to December 31, 1955. It was felt that such a report would give a better picture of the status of funds in the Society.

In conclusion, I would like to thank every member of the Society for the trust and confidence. I consider it an honor, realizing that I am among the younger members of the ASHP. I wish particularly to thank Miss Gloria Niemeyer and Mrs. Virginia Dean without whose gracious assistance the work of the treasurer would be a burden rather than the pleasure it is. Truly, it has been a pleasure and a privilege to serve as treasurer of the American Society of Hospital Pharmacists.

EDITOR'S NOTE: The financial statement for 1955 appears on the next page.

Report of the Treasurer

SISTER MARY REBECCA

January 1, 1955 — December 31, 1955

BALANCE AND RECEIPTS

BANK BALANCE January 1, 1955		$ 4,207.25
RECEIPTS		
Dues	$11,128.25	
Special Contribution (for Article)	50.00	
Special Contribution (for Travel)	35.00	
Close out old Checking Account	2.37	
Refund of Advance for Expense	34.73	
Total Receipts		11,250.35
Total Balance and Receipts		$15,457.60

DISBURSEMENTS AND CASH BALANCE

DISBURSEMENTS		
Annual Meeting Expense	$ 530.03	
Audit and Legal	325.00	
Bulletin Contribution (1954)	2,198.00	
Certificates and Membership Cards	140.91	
Contributions	50.00	
Expense of Election	159.21	
Postage and Express	1,034.58	
Publication of Annual Report	1,717.88	
Refunds and Bank Charges	50.40	
Savings Fund	500.00	
Special Activities	1,300.62	
Stationery and Office Supplies	350.07	
Telephone and Telegraph	410.20	
Typing Expense	51.00	
Travel — Officers and Committees*	4,697.70	
Total Disbursements		13,515.60
BANK BALANCE, December 31, 1955		1,942.00
Checking Acct., Riggs National Bank, Washington, D. C.		
Total Disbursements and Balance		$15,457.60

STATEMENT OF SAVINGS

Savings Account, National Savings and Trust Company, Washington, D.C. — 12-31-1954	$ 1,002.50
Interest to 12-31-1955	17.60
Total Savings	$ 1,020.10

**It should be noted that this item covers the expense of two meetings of the Executive Committee during the calendar year 1955. It was necessary to hold two meetings in one year due to the change in the time of the Annual Meeting.*

Report of the Committee on Minimum Standards

W. ARTHUR PURDUM, *Chairman*

No meeting of the Committee was held during the SOCIETY year now ending so this report largely constitutes a Chairman's report.

With the coming of the five and six year curricula in our schools of pharmacy, there will be a sharp decline in the number of students entering an internship in hospital pharmacy associated with graduate study leading to the Master of Science degree. After the five year course becomes mandatory, it is highly improbable that many students will see fit or can afford to take two additional years for an internship in a hospital and academic work leading to the M.S. A reasonable manner in which to meet this problem is to make courses related to hospital pharmacy available during the fourth and fifth years of the five year program and the student thus prepared, upon graduation, could enter internship in a hospital. It therefore behooves the SOCIETY and particularly the Committee on Minimum Standards to draft syllabi of courses for undergraduate students to prepare them for careers in hospital pharmacy.

The courses recommended are Orientation in Hospital Administration, Hospital Pharmacy Administration, Central Sterile Supply Administration and Operation, and Pharmaceutical Manufacturing and Control.

The course in Hospital Administration should be designed to give the student an overall picture of the whole operation of a hospital and should preferably precede the course in Hospital Pharmacy Administration. It should consist of a minimum of sixteen hours of lectures although thirty-two would be more desirable.

The SOCIETY has already drafted and published a good syllabus for the course in Hospital Pharmacy Administration and this is being used currently by many of the colleges.

The Special Committee on Pharmacy Operated Central Sterile Supply presented a draft of a syllabus for a course in Central Sterile Supply Administration at the Miami meeting last year. Since then, the material has been reviewed, improved upon considerably and will again be presented in the report of that special committee at this meeting.

The courses in Manufacturing and Control are already offered by many of the schools of pharmacy and the drafting of syllabi should not be difficult. These may be offered as one, two or three courses. For example, one college may prefer to offer a course in Non-Sterile Manufacturing, a second in Sterile Manufacturing and still a third in Manufacturing Control. Another may prefer to combine non-sterile and sterile manufacturing into one course. Finally, all three subjects may be combined into one course.

The SOCIETY should not delay in approaching the American Association of Colleges of Pharmacy to propose a hospital pharmacy major as one of the electives available to students. Those schools not now offering a five-year course are well into the planning and discussion stages of the curriculum and it is important that the SOCIETY act promptly. Already, the University of Maryland has planned to offer three directions in which a student may turn, namely, a hospital pharmacy major, a retail pharmacy major and a pre-graduate major.

Considerable progress has been made in setting up the necessary machinery for the inspection and accreditation of pharmacy internships in hospitals. The Policy Committee of the Division of Hospital Pharmacy has appointed a task force to draw up recommendations of policies and procedures to accomplish this highly desirable and much needed accreditation. The task force has completed its objective and its detailed report will be presented at this Convention. In setting up these proposed standards for accreditation, it was found necessary to propose substantial changes in the Minimum Standard for Pharmacy Internships in Hospitals. Therefore, one of the matters for consideration by the next Committee on Minimum Standards will be to review the proposed changes and make recommendations leading to their adoption by the SOCIETY.

Committee on Minimum Standards: W. Arthur Purdum, Chairman, Grover C. Bowles, Joseph P. Crisalli, Walter M. Frazier, Jean Sheffield, John Scigliano, Jerome M. Yalon.

Report of the Committee on Membership and Organization

JAMES D. McKINLEY, JR., *Chairman*

This past year has been a gratifying one to the Chairman of the Committee on Membership and Organization. The President appointed a large Committee to work on the membership drive, one which would have at least one representative in each state. There were too many individual members of the Committee who did outstanding work to take the time here to thank them individually, but the Chairman would like to take this opportunity to extend a sincere "Thank you for a job well done" to all the members of the Committee.

As of the latest report of new members, the SOCIETY has added 383 new members since the convention in Miami last May. The present membership statistics are shown below:

Total Number of Members	2,375
Active	2,021
Associate	351
Honorary	2
Life	1
Number of Delinquent members still carried on the roll	184

As noted from this report, the ASHP rolls show a net increase in membership of 109 members. The number of delinquent members on the roll is high, however at the last convention this figure was 225, so there has been a healthy decrease in this figure. The fact that there is a net increase in membership of only 109 members in spite of 383 *new* members joining might cause some concern among some

of our members. This represents a loss of 274 members during the year due to death, resignation, and non-payment of dues. Death and resignations are the smallest part of this total loss, the largest part being those members who were dropped for non-payment of dues. It should be kept in mind that the potential membership of the ASHP is somewhat flexible. Many members drop out of hospital pharmacy to purchase pharmacies of their own. Others yield to the promise of greater financial rewards in the practice of retail pharmacy, while others (among the female segment of our membership) sometimes leave the practice of the profession of pharmacy to enter the profession of matrimony and/or motherhood. In many cases, these individuals do not take the time to write a letter of resignation but simply let their membership lapse, accounting for the majority of the dropped members. It is the feeling of your Chairman that these losses are a very natural occurrence, and are not a matter of any great concern. The primary aim of this Committee is to constantly keep the number of new members above the number which are being dropped, thereby assuring the Society of continued growth.

Affiliated Chapters

During the year, the Society accepted two new affiliated chapters. These are the Hospital Pharmacists' Association of Greater Kansas City and the Virginia Society of Hospital Pharmacists. There are several other chapters in the country which have recently been organized and have shown an interest in affiliating with the ASHP at an early date. A great deal of credit should be given to the various affiliated chapters in this matter of recruitment, as these chapters are the life blood of the ASHP. It is very encouraging to see new chapters forming and applying for affiliation with the ASHP. Every effort should be made to encourage more and more chapters to organize, particularly in areas where Society activity has not been too strong in the past.

No report on membership would be complete without mentioning the tremendous amount of work that is done in the field of membership at A.Ph.A. Headquarters in Washington. Much of the credit which so often goes to the Committee on Membership and Organization for the increase in membership actually belongs to the staff working at the Headquarters Office.

Recommendations

1. It has been noted that a large number of Affiliated Chapters have on their membership rolls numerous persons who are not members of the ASHP. This is a dangerous situation, particularly where in some instances a majority of the members of a Chapter are non-ASHP members. I recommend that the ASHP re-emphasize to these chapters the need for 100 percent ASHP membership in order to retain their affiliation in good standing, and if the re-emphasis does not rectify the situation, then I recommend that the Executive Committee study the possibility of stronger action, perhaps placing the Affiliated Chapter on probation for one year during which time the Chapter would be policing its rolls with the aim of bringing all its members into the ASHP in order that their Affiliation could be removed from the probationary status.

AMERICAN SOCIETY OF HOSPITAL PHARMACISTS

Affiliated Chapters—Membership Statistics - 1956

	Members* Total Active	Members of A.Ph.A. and A.S.H.P.	A.Ph.A. Members but *not* A.S.H.P.	Non-members
SOUTHEASTERN	211	143	6	62
ALABAMA	17	13		4
ARIZONA				
NORTHERN CALIFORNIA	145	64	19	62
SOUTHERN CALIFORNIA	89	80	1	8
CONNECTICUT	14	14		
FLORIDA				
SOUTHEASTERN FLORIDA				
GEORGIA				
ILLINOIS	59	51	2	6
MIDWEST ASSOCIATION	40	36	1	3
INDIANA	25	24		1
IOWA	13	12		1
LOUISIANA				
MARYLAND				
MASSACHUSETTS	84	75		9
MICHIGAN	75	37	8	30
MINNESOTA	18	13	2	3
MISSISSIPPI	13	10		3
GREATER KANSAS CITY	19	14	1	4
GREATER ST. LOUIS				
NEBRASKA				
NEW JERSEY	55	39		16
GREATER NEW YORK	18	18		
NORTHEASTERN	21	16	1	4
ROCHESTER AREA	10	10		
WESTERN NEW YORK	20	11	1	8
NORTH CAROLINA	25	24		1
OHIO	94	75	1	18
AKRON	39	32		7
GREATER CINCINNATI				
CLEVELAND	34	28	1	5
TOLEDO	15	13		2
OKLAHOMA	35	16	2	17
OREGON	32	17	1	14
WESTERN PENNSYLVANIA	42	19		23
PHILADELPHIA	117	110	3	4
RHODE ISLAND	37	11	2	24
TENNESSEE				
HOUSTON AREA	28	28		
TEXAS	59	51	3	5
UTAH	11	10		1
VIRGINIA				
WASHINGTON STATE				
WISCONSIN	48	36	2	10
TOTALS	1562	1170	57	354

*Although the requirements for Active and Associate members in the affiliated chapters vary, we are assuming that all Active members are practicing hospital Pharmacists.

2. I recommend the establishment of an award, consisting of a suitably inscribed plaque or certificate of merit, to be awarded annually to the Affiliated Chapter of the ASHP which has done outstanding work in the field of recruitment during the previous year. Our organization needs the support of all the hospital pharmacists in this country, and it is believed that this award would help stimulate more activity among the Chapters in the never-ending search for new members. The selection of the Chapter to receive this award would be made by the Secretary of the ASHP and approved by the Executive Committee. Presentation of this award should be made during the annual convention of the ASHP.

Report of the Committee on Program and Public Relations

LEO F. GODLEY, *Chairman*

The 1954-55 Committee, under the leadership of Paul Parker, embarked upon some extensive public relations activities which were continued this year under the direction of Mr. Parker who served as co-chairman of this Committee. Mr. Parker will submit a separate report on this activity.

Program suggestions were solicited from the various members of the Committee by correspondence. These suggestions, along with suggestions from the general membership, were used to formulate the program for the annual meeting.

This Chairman submitted, by letter, a list of program suggestions to the Planning Committee of the forthcoming Texas Institute on Hospital Pharmacy; and served as an attending member of the Planning Committee of the Chicago Institute which is scheduled for next August.

An old assignment of this Committee, relative to the establishment of an award to outstanding hospital pharmacists was discussed in detail at the mid-year meeting of the Executive Committee and it is felt that the incoming president will want to reassign this duty, probably to a Special Committee.

The help and guidance given by the Committee members as well as that from the general membership is herewith gratefully acknowledged.

Recommendations

It is recommended:

1. That the Committee on Program and Public Relations be divided into two committees: (a) Program Committee, and (b) Public Relations Committee.

2. That the Chairman of the Program Committee, in the future, send a circular through the Secretary's office to hospital pharmacists and colleges of pharmacy requesting that they submit titles of papers for presentation at the Annual Meeting. It is felt that much good material has been overlooked in not having such notices circularized.

Committee on Program and Public Relations: Leo F. Godley, Chairman, Paul F. Parker, Co-Chairman, Eileen Bailey, Rudolph W. Hardy, Cedric M. Jeffers, John F. Kellerman, Marjorie O'Boyle, Ruth Pully, Jane Rogan, Lewis Smith, Ralph Stone.

Report of the Committee on Pharmacists in Government Service

CHARLES G. TOWNE, *Chairman*

President Busick, having expressed approval of the previous term's clarification of the functions and responsibilities of this Committee, reappointed the Chairman and several members with the aim of establishing those purposes and continuing the pending project.

The membership appointment this term represented every phase of government service—Veterans Administration, Public Health Service, Indian Service, Military Services, County and State—and a non-governmental member as liaison between the ASHP and A.Ph.A.'s Committee on Status of Pharmacists in Government service. Several projects awaited this Committee's further action this term:

1. Create Society interest and activity among pharmacists practicing in State and County Hospitals.
2. Accreditation of government teaching hospitals in the interest of G. I. pharmacists.
3. Aid to the Army project for surveying and raising the standards of their hospital pharmacy practice.

An initial meeting of several members of this Committee was held at the Chicago Institute in June. Plans were laid for several projects. The Chief of the Pharmacy Branch of the Public Health Service and the Director of Pharmacy Service in the Veterans Administration were contacted, and cooperation with this Committee was assured. Principally by member representation and correspondence through them, the services of this Committee were made available to those concerned with pharmacy practice in all other branches of the government services.

State and County Hospitals

It was felt that there is a broad field for expanded activity in the many isolated State and County hospitals awaiting only the attention of this Committee and the Society for realization. Where there is a needed improvement, and raising of standards, a stimulation of interest by our own efforts would be particularly worthwhile, and the Society would also benefit in new members. This is an example of cooperation between this Committee and the Membership Committee.

Contacting the pharmacists in the many State and County hospitals presents a difficult problem. An approach through The Bulletin and through the local ASHP Chapters is suggested; also, a special project of interest is being tried as an "indirect" approach. This project is being started on a pilot basis in California as a study on the "Impact of Tranquilizing Drugs upon the Operation and Economy of the Pharmacies in Mental Hospitals." Since neuropsychiatric care is extensive in a wide range of County, State, and Federal hospitals, such a project is well indicated and will demonstrate the service aims of this Committee.

G. I. Bill and Accreditation

Hospital accreditation and eligibility for veteran training benefits, particularly in the interest of interns and residents in governmental hospitals, remain a concern of this Committee. However, this awaits the establishment of procedures by a very competent Task Force of Society members acting for the Division of Hospital Pharmacy. Earlier experiences of this Committee and the advantages of contacts through the governmental channels have been utilized through liaison with the Task Force Chairman.

Canadian Government Pharmacists

Some government pharmacists in the Canadian Society were attracted to the value of a committee within their organization to consider problems arising of special concern to their interests. Assistance was rendered, and is being continued.

Army Pharmacy Project

Attention of this Committee has been principally directed to its major project—assistance to the Army Medical Service Corps in its project to raise the standards of its hospital pharmacy practice. An initial meeting and correspondence with the Chief of the Medical Service Corps established a cordial relationship that opened the door for close cooperation, and the following mutual goal: Establishment of higher standards and endeavor to interest army pharmacists in hospital pharmacy as a specialty and career, while still in the service. It is hoped that eventually more assignments in the army hospitals will induce high caliber pharmacists to choose army pharmacy as a career. Training programs can eventually be on the level of hospital pharmacy internships and residencies as the pharmacy standards are developed to meet accreditation requirements. The introduction to hospital pharmacy in the services has been the incentive for many to specialize on return to civilian status, and this will increase as better opportunities are available.

Upon the appointment of Major William Austin as consultant to the Surgeon General, closer liaison was established through our member, Dr. Richard Hall, in Washington, D. C. This expedited details and furthered immediate coordination with the Secretary of the Society. One project nearing accomplishment is the sending to each major army hospital pharmacy a packet to include a sample copy of The Bulletin, the Minimum Standard, and pertinent reprints, with a letter about the Society and an application for membership. Further, a renewed interest is aroused to create a special form of membership in the A.Ph.A. and Society with reduced dues so that through membership in these organizations pharmacists in the service will be kept currently informed and their interest stimulated toward a hospital career. Consideration is being given to requesting an expansion of the plan enabling student members to maintain their A.Ph.A. membership with dues increasing on a sliding scale, to one which will allow pharmacists in the service to maintain, or if not a student member previously, to join, at this special rate. This membership could then be recognized by the Society as qualification for a military associate membership.

Captain Jack McNamara of this Committee was appointed project officer to study improvement of army pharmacy in the hospital management research unit at Brookes Army Hospital in Texas. Objectives of the project are:

1. Development of a Pharmacy Service which will:

   A. provide a level of pharmaceutical service which meets the standards established by organized pharmacy and which can be identified as "good practice."

B. meet standards of accreditation agencies.

C. meet legal standards of the various states.

2. Development of a workload analysis system which will:

A. permit the precise measurement of Pharmacy Service Personnel requirements.

B. provide a basis for determining distribution of various categories of personnel within total requirements.

Close correspondence and a visit by the Chairman to Captain McNamara in Minneapolis expedited assistance in these problems. Through this Committee, available results of previous and current surveys were supplied, and the Public Health and Veterans Administration were asked, and cooperatively responded, to furnish excellent material gained from their experiences. Civil Service standards were also obtained for use in the project. Captain McNamara devised an excellent questionnaire for submission to about 50 key hospital pharmacists in the country for guidance in establishing desired standards. This was submitted to the Society by the Committee with the suggestion it be made a Society and Committee activity. Unfortunately, this is delayed by some question being raised as to the Society's policy. Since it seemed to be in the nature of a survey for a special interest group, final decision is pending at the time of this report.

Government Pharmacists' Seminars

Comments extracted from the sub-report of Reede M. Ames, Senior Pharmacist, Division of Indian Health, U.S.P.H.S., reflect the thinking and aims of a policy for government pharmacists worthy of a permanent record in this report, as follows.

"To establish the government pharmacist on the level we believe he deserves, we must first have a sincere, devoted and knowledgeable individual in the position. Assuming that this has taken place, then the leadership of the Pharmacy Section of the organization (P.H.S., V.A., Army, Navy, etc.) can do more than any other factor in convincing the Branch of Service or institution that government pharmacy must be on the same high plane as government medicine and surgery. It is the inspiring, enthusiastic leadership, backed by the devoted loyalty of the ranks, that has made P.H.S. pharmacy what it is today—and we think quite a lot of it. Get the leaders; recruit loyal, intelligent, aggressive men for the ranks, and demonstrate to the individuals who have the power to do something for you that pharmacy is a profession, not a job."

This is in entire agreement with Committee policy as previously reported. Improved status of pharmacists will best be accomplished by creating higher standards. We are approaching this goal as demonstrated by Public Health Service, Veterans Administration, and now the Military services. This assures continual strides toward leadership in the entire field of pharmacy. While renewing last year's commendations of Directors Archambault and Trygstad, particular commendations this year are added for Colonel Bernard Aabel and Major William Austin of the Army Medical Service in their aims and contribution toward promoting high standards of pharmacy practice.

Within the Committee all members contributed considerable thought to our problems. Unfortunately, further phases could not receive the attention required, and offers of aid were more than could be used.

Recommendations

The projects mentioned above, being of a continuing nature, should be further pursued in future terms. The experiences and guidance of current members are volunteered to the fullest extent.

It is recommended that the Society consider a Military Associate Membership for pharmacists (in other than in the status of pharmacy officer) in the armed services. The purpose of offering this category of membership would be to stimulate interest in hospital careers while in the service, or after discharge. It is further recommended that the Executive Committee consider a resolution to the A.Ph.A. for an expanded special membership for pharmacists in military service.

Also, special seminars dealing in the problems particular to Government Hospitals and their pharmacies should be considered in the Society's educational programs.

Committee on Pharmacists in Government Service: Charles Towne, Chairman, Theodore Taniguchi, Jack W. McNamara, Russell Taylor, Paul Hudson, Grover C. Bowles, Reede Ames, and Richard Hall.

Report of the Committee to Study the Role of the Pharmacist in Small Hospitals

THOMAS FOSTER, *Chairman*

A resolution was passed at the Annual Meeting of the Society held in Miami Beach authorizing the continuance of the Committee for 1955 and 1956. Names of members of the current Committee are listed at the end of this report.

The Committee was created following the meeting held in Philadelphia on August 21-22, 1952, making its first report at the Salt Lake City meeting in August 1953, and reappointed each year until the present time.

Since the beginning, your Chairman has attempted to bring into national focus the extent of the problem and the need to make a study to learn as much as possible about the provision of pharmacy service in small hospitals as an essential segment of care for the patient. An increasing interest in providing pharmacy service in small hospitals is evidenced by papers presented at meetings of hospital pharmacists and administrators, as well as those appearing in the professional journals.

Some success is being achieved in this direction for, at the moment, several studies are now under way. These include the recently awarded Hospital and Medical Facilities Research Grant to the American Pharmaceutical Association by the Division of Research Grants, Public Health Service. The survey title is "Audit of Pharmaceutical Service in Hospitals" and Dr. Don E. Francke has been named principal investigator.

The Chairman believes that the Committee has done all it can, due to lack of funds and personnel to proceed further, and respectfully requests that it be dissolved. In the event that there is occasion to use my services as a consultant, I will be pleased to serve in this or any other capacity.

The Committee desires to make a specific recommendation for consideration by the Society. For some time past we have felt that it would be desirable to furnish small hospitals with professional consultation on their hospital pharmacy problems at the local level. To explore the possibility of rendering this assistance we would suggest that an application be made for a grant from the Public Health Service for a study and demonstration on furnishing pharmaceutical services to small hospitals of less than 75 beds. Justification for such a grant should provide for:

I. A demonstration of methods to coordinate small hospital pharmacy services with that of a local teaching medical center, or a large local hospital with an active pharmacy department, or a local retail pharmacy.

II. A demonstration of pharmacy operation in the small hospital through the State Health Agency in cooperation with the State Pharmaceutical Association, State Hospital Association, State Board of Pharmacy, and retail pharmacists in the immediate hospital area.

I would like to emphasize that this suggestion involves an actual demonstration and not a survey.

It has been a privilege to serve the Society and we wish to express our appreciation to Dr. Fischelis and Miss Niemeyer for their cooperation at all times.

Committee to Study the Role of the Pharmacist in Small Hospitals: Thomas A. Foster, Chairman, Ned E. Kinney, Marjorie O'Boyle, Sister Mary Donalda, Tadishi Tomihiro.

Report of the Committee on Special Projects

HENRY W. BEARD, *Chairman*

Hospital pharmacy assumes its rightful place among the professions with the pharmacist of today owing a debt to his predecessors that may be paid by sharing his knowledge and accomplishments with both his fellows and future generations. The Commitee on Special Projects is the opportunity for each hospital pharmacist to take his place on the team and have his contribution shared by his fellows. The Committee has encouraged the recording of accomplishments and the stimulation of new ones by groups and individuals. Needs and trends have been observed; some of the projects of past years have already matured into Society-wide studies such as the Hospital Formulary Plan, and the Committee on Economic Poisons. In the past year ten out of forty of the Chapters and Areas replied to requests for projects and eight of these were active in presenting a total of seventeen projects. These have been arranged into the categorical topics of Scientific, Educational, Public Relations, Economics and Administration with the following projects accomplished or in process this year:

I. *Scientific*:

Seminar on sterile solutions, large and small volume.

Collection of working formulas (injectibles and galenicals).

Point rating of hospital pharmacies.

Persuasion of pharmacy state boards to allow hospital pharmacy time to count toward registration.

II. *Educational*:

Area seminar for hospital pharmacists.

Chapter seminar for hospital pharmacists.

Presentation of a Pharmacy Section at a hospital association meeting.

Interesting pharmacy seniors in hos-

pital pharmacy through tours and conferences (3 projects).

History of local chapter.

III. *Public relations*:

Seminar for hospital administrators by hospital pharmacists (2 projects).

Campaign to eliminate nurses functioning as pharmacists.

Making it a requirement for all hospitals over fifty beds to have a pharmacist.

Improving the relations between pharmacists and administrators.

IV. *Economics*:

Location of rare and expensive drugs.

V. *Administration*:

Survey of pharmaceutical practice in tuberculosis, mental and correctional institutions in the state.

Promotion of the use of generic names.

Procedural manual for hospital pharmacies.

Summary

It appears, as a result of the projects submitted this year, that:

1. Hospital pharmacists are aware of their responsibility for the expansion and continuation of their profession by recruiting from the Schools of Pharmacy.
2. Seminars with hospital administrators are a means of solving the problems of hospital relations.
3. Local hospital pharmacy seminars are used as an adjunct to the institutes.
4. Hospital pharmacists wish to still further upgrade the profession.

It is recommended that the new committee:

1. Encourage broader group and individual participation.
2. Stimulate the completion of projects and their written interpretation so they may be published for the benefit of the SOCIETY.

Committee on Special Projects: Henry Beard, Chairman, Clarence C. Brown, Ruth M. Kroeger, Marguerite Jones, Pat Murphy, Arthur W. Radcliffe, Sister M. Hildegard.

Report of the Committee on Historical Records

ALEX BERMAN, *Chairman*

The solicitation of affiliated SOCIETY Chapter histories was continued by this Committee. Only one manuscript was received this year, in contrast to eleven received by the previous Committee. Thus, at the present time, there have been deposited on indefinite loan with the American Institute of the History of Pharmacy in Madison, Wisconsin, twelve affiliated Chapter histories.

To Mr. William Whitcomb, Chief Pharmacist of the Rochester General Hospital, the Committee extends its thanks for his paper entitled, "History of the Society of Hospital Pharmacists of the Rochester, New York Area."

Upon the recommendation of the Committee, the American Institute of the History of Pharmacy is awarding two-year gift memberships to Doris Hawkins for her "History of the Arizona Society of Hospital Pharmacists," and to William Whitcomb for his contribution mentioned above.

Recommendations

With thirty-three histories of affiliated chapters still unrecorded, renewed efforts should be made to obtain these histories for the SOCIETY's archives. At the same time, increased efforts to stimulate historical writing in hospital pharmacy should be continued.

It is recommended that an inexpensive brochure be distributed to members of the SOCIETY, which would be a "Guide" to the writing of history of hospital pharmacy. It would contain a discussion of methods, sources, bibliographies and other pertinent matters. The American Institute of the History of Pharmacy will be glad to render assistance with this project.

Committee on Historical Records: Alex Berman, Chairman, Evelyn M. Carlin, J. Robert Cathcart, William Heller, Adela Schneider, and Sister Margaret Mary.

Report of the Committee on Narcotics, Hypnotics, Ethyl Alcohol, etc.

ARTHUR W. DODDS, *Chairman*

The Committee has endeavored during the year to conclude the activities of the former Committees on Narcotics in order that approved hospital narcotics regulations may be published. The Committee has prepared a separate report on the use of narcotics in hospitals which is presented with the heading, "Report of the Committee on Hospital Narcotic Regulations." This narcotic report is the major contribution of this year's Committee. I shall not take further of your time on this matter other than to inform you that in the opinion of the Committee and the consultants that have reviewed the report, including federal narcotic officials, we have at last reached our objective in this matter. This material is now in the hands of the Bureau of Narcotics for final review. It will therefore soon be ready for publication and distribution to hospital pharmacists, hospital administrators, and other interested individuals as recommended at last year's Annual Meeting.

The Committee has but one other matter to bring before you today. In our opinion it is a matter that warrants your serious consideration. I refer to recent rulings relative to the use of tax-free alcohol in hospitals and clinics.

During the past fiscal year two federal revenue rulings were promulgated by the Alcohol and Tobacco Tax Unit, relative to tax-free alcohol. They were issued from the Philadelphia office of the Regional Commissioner of the Internal Revenue Service. The first ruling was released November 18, 1955 and the second, December 20, 1955. These rulings are entitled "Use of Tax-Free Alcohol by Hospital and Clinics" and "Use of Tax-Free Alcohol for Pathological Examination." The Committee believes these regulations of such serious import that they should be brought to the attention of the SOCIETY and the American Hospital Association. Copies of these rulings issued through the Philadelphia Regional Office have become a part of the Committee record.

In interpreting the revenue ruling on the Use of Tax-Free Alcohol in Hospitals and Clinics, it is the opinion of this Committee that it is impossible to meet the requirements and allow pharmaceutical preparations, made with Tax-Free Alcohol, to be dispensed for use off the premises. The ruling does permit a charge to be made for pharmaceutical preparations with Tax-Free Alcohol used *in* the hospitals or clinics. Many of us may feel that this regulation produces a hardship on the indigent and should be revoked as not being consistent with the present administration's attitude which is attempting through the Hill-Burton Act and otherwise to provide better care of the ill and injured of the land. However, these rulings appear to have the effect of law and it must remain for future committees to work with other interested groups for suitable revisions. It is suggested in this connection that Mr. Dwight Avis, Commissioner of the Alcohol and Tobacco Tax Unit, be consulted, relative to the need for this regulation and that such contact be made through joint action of the American Hospital Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

The Committee suggests that local chapters invite qualified officers of Regional Alcohol and Tobacco Tax Unit Divisions to discuss the use of Ethyl Alcohol in Hospitals and Clinics.

Since the definitions, narcotic control forms and interpretations (Registration and Hospital Narcotic Control Procedures), have been referred to the Bureau of Narcotics for final review, the material is not being presented at this time. So that SOCIETY members will be familiar with the scope of this Committee activity, the Table of Contents is included. As soon as we have heard from the Bureau, the complete report along with the final recommendations from the narcotic officials will be referred to the Executive Committee with the recommendation that it be published as soon as feasible. The recommendations are included here for consideration at this Annual Meeting.

Recommendations

1. In considering the problem of a special class or classes for hospital narcotic registrants for some future date, the Committee felt that two classes might be a workable solution to the problem. The two classes would be those hospitals employing a full-time pharmacist and those hospitals not employing a pharmacist. Hospitals which employ a full-time pharmacist would be authorized to use narcotic drugs for administering to inpatients and in filling prescriptions for *bona fide hospital outpatients*. Hospitals without a pharmacist to fill prescriptions would be allowed narcotics for administering to inpatients on a doctor's order only. This suggestion is respectfully submitted to the SOCIETY for consideration. If approved, it is suggested that such resolutions be forwarded to the American Hospital Association, the Catholic Hospital Association, the American Pharmaceutical Association, and the Bureau of Narcotics for consideration as a possible legislative solution to this vexing problem.

2. It is strongly recommended that the Narcotic Report, as submitted and as approved by the Bureau of Narcotics, should be referred *in toto* to the American Hospital Association, the Catholic Hospital Association, the American Pharmaceutical Association, the Protestant Hospital Association, and the national hospital publications, with a request that proper publicity be given this important item of hospital administration.

EDITOR'S NOTE: At the time of publication of this Report, it had not yet had final approval of the Bureau of Narcotics. It is therefore anticipated that a more complete Report, along with the suggested forms, will be published in THE BULLETIN at a later date.

3. It is recommended that the resolution passed at the 1955 Annual Meeting of this SOCIETY (See *Bull. Am. Soc. Hosp. Pharm. 12*:400, July-August 1955) i.e., that copies of this narcotic report in final form be made available to hospital pharmacists and hospitals, be implemented as soon as feasible.

4. It is recommended that the Narcotic Report, in its final form, be transmitted by the SOCIETY to the Schools of Medicine, Schools of Pharmacy, and to the Secretaries of State Medical Boards, Pharmacy Boards and Hospital Licensing Boards, with an appropriate covering letter.

5. It is recommended that the By-Laws of the SOCIETY be changed to include a new standing committee which would be called "Hospital Pharmacy Law, Regulations, and Legislative Committee." This Committee would continue the work assigned to the present Committee on Narcotics, Hypnotics, Ethyl Alcohol, etc. as part of its duties.

6. In light of the experience gained during the past several years the narcotic forms, previously accepted by the SOCIETY, have again been reviewed. Some changes have been made and two new forms have been added. Changes in these forms as incorporated in Exhibit No. 1 and Exhibit No. 3, will make for better functional use. The Committee recommends that the format of the forms, submitted as Exhibit No. 1, No. 2, and No. 3, be accepted as the approved narcotic forms and that these be made available, by the SOCIETY, at cost, for Hospitals and Clinics.

As Chairman I wish to thank Mr. Harry Anslinger of the Bureau of Narcotics and his associates, Mr. G. W. Cunningham and Mr. Alfred Tennyson for their most helpful advice and assistance; Miss Gloria Niemeyer for her most gracious aid; Mr. Milton Skolaut for his help on narcotic forms; Dr. G. F. Archambault for his invaluable counsel and advice on the arrangement of regulations and the individual members of the Committee who worked hard and long to develop this report.

Committee on Narcotic, Hypnotic, Ethyl Alcohol, etc. Arthur W. Dodds, Chairman, Norman Baker, Betty Job Bolen, Harry Riddle, Sister Marian Flynn, Margaret C. Shea, Francis X. Sturner.

HOSPITAL NARCOTIC REGULATIONS

CONTENTS

To be published by the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

U. S. TREASURY DEPARTMENT
INTERNAL REVENUE SERVICE
REGIONAL COMMISSIONER
PHILADELPHIA 7, PA.

In Replying Refer To:
AT:P:B:

November 18, 1955
Alcohol and Tobacco Tax Division
Industry Memorandum No. PHI-55-45

USE OF TAX-FREE ALCOHOL BY HOSPITALS AND CLINICS

Users of Tax-Free Alcohol and Others Concerned

1. This industry Memorandum relates to the use of tax-free alcohol by hospitals and sanitariums, and by clinics operated for charity and not for profit, for the compounding of medicines, and to the sale and dispensing of medicines so compounded.

2. Section 5310 (c) of the Internal Revenue Code of 1954 and Section 182.661 of the Industrial Alcohol Regulations provide, in part, that alcohol may be withdrawn from any industrial alcohol plant or bonded warehouse tax-free for use in any hospital or sanitarium, or for the use of any clinic operated for charity and not for profit, including use in the compounding of bona fide medicines for treatment outside of such clinics of patients thereof, but not for sale. Under these sections of the law and regulations, it has been held (Revenue Ruling 55-664) that:

.01 A hospital operated for charity or for profit, using tax-free alcohol, may make a separate charge for medicines compounded on hospital premises with tax-free alcohol for administering to patients on the premises. The sale of such medicines for use off the hospital premises is prohibited.

.02 A clinic operated in conjunction with a hospital may not sell medicines compounded with alcohol withdrawn free of tax for use of its patients off the premises, regardless of whether any payment represents the cost of the medicine, is more or less than the cost, or is in the nature of a fee or contribution.

.03 A clinic, not connected with any hospital, operated for charity and not for profit, may charge a fee for medicines compounded with tax-free alcohol when administered inside the clinic and no profit is realized by the clinic from any patient as a result thereof or from any source or in any manner. Such a clinic may not dispense medicines compounded with tax-free alcohol to patients for use off the premises if the clinic accepts a fixed fee or nominal registration or admission fee from the patient. See also in this connection Revenue Ruling 54-464 which was quoted in Notice A.T. No. 72, dated November 15, 1954, that this office sent to all permittee users of tax-free alcohol.

3. The restrictions contained in this Industry Memorandum are applicable to medicines compounded with tax-free alcohol only. They do not apply to the sale of medicines compounded by hospital pharmacies or clinics with taxpaid alcohol, regardless of whether such alcohol may or may not be subject to drawback. Revenue Ruling 54-464 to which reference is made in Paragraph 2.03 should also be so interpreted.

4. Any inquiry about the subject matter of this Industry Memorandum should refer to its serial number and the symbols in the heading, and should be addressed to the Assistant Regional Commissioner, Alcohol and Tobacco Tax, 1700 Widener Building, Philadelphia 7, Pennsylvania.

LOUIS DeCARLO
Assistant Regional Commissioner
Alcohol and Tobacco Tax

U. S. TREASURY DEPARTMENT
INTERNAL REVENUE SERVICE
REGIONAL COMMISSIONER
PHILADELPHIA 7, PA.

In Replying Refer To:
AT:P:B:

December 20, 1955
Alcohol and Tobacco Tax Division
Industry Memorandum No. PHI-55-50

USE OF TAX-FREE ALCOHOL FOR PATHOLOGICAL EXAMINATIONS

Users of Tax-free Alcohol and others concerned:

1. In the third paragraph of Office Notice A.T. No. 56, dated June 17, 1954 appear statements to the effect (1) that hospitals, sanitariums, and clinics holding permits to use tax-free alcohol but not maintaining laboratories for the examination of pathological specimens of its patients may send such specimens to hospitals or sanitariums holding permits to use tax-free alcohol for pathological examination, and (2) that in such cases the use of tax-free alcohol in the examination of the specimens would be permissible. It has been held that these statements are not consistent with current interpretations of the regulations, as set forth in Revenue Ruling No. 54-173 (I.R.B. 1954-20,14). The portion of Notice A. T. No. 56 containing the inconsistent statements is accordingly rescinded.

2. Under existing regulations privately owned hospitals may not use tax-free alcohol withdrawn under permits to make pathological examinations or tests for other hospitals, physicians, or for individuals who are not patients of such hospitals. Such laboratory work of a privately owned hospital is not considered distinguishable from that carried on by any commercial laboratory.

3. Any inquiry about the subject matter of this Industry Memorandum should refer to its serial number and the symbols in the heading, and should be addressed to the Assistant Regional Commissioner, Alcohol and Tobacco Tax, 1700 Widener Building, Philadelphia 7, Pa.

LOUIS DeCARLO
Assistant Regional Commissioner
Alcohol and Tobacco Tax

Report of the Committee on Disaster Preparedness

LUDWIG PESA, *Chairman*

The complex nature of our disaster preparedness problems does not permit complete accomplishment by any one committee in any one single year.

This effort was first begun by a Civil Defense Committee in 1950. The Committee title was changed by 1951 to "Disaster Preparedness" in order to include in the pharmacy planning, the medical after-phase of catastrophe beside that of nuclear bombing.

Since 1950, various phases of this activity have been explored: choice of drugs; replenishment of supplies; the recruiting of extra pharmacy skill; national and local civil defense tie-in and basic assumptions and consequent suggestions on the initial situations developing from disaster.

It appeared a due and timely endeavor for the Committee this year, to assemble previous findings into an outline for application as a "preparedness dry run" by our hospital pharmacies. The American Hospital Association has emphasized the need for frequent disaster rehearsals in hospitals.

It is to be borne in mind that a hospital's overall plan for disaster is a nuclear framework to which each department or specialty contributes with integrated unit organization.

The prime objective of hospital pharmacy in disaster is to supply the very same efficient pharmacy service, whether it be administrative or manual, as a more greatly expanded operation.

It will be to the credit of hospital pharmacy to show a well organized action when the master plan is activated.

A study of actual hospital experiences in treating mass casualties has revealed that even in forewarned situations, unforeseen circumstances will occur. This introduces the elements of conjecture in pre-planning with so many ramifications, that a simple and concrete type of procedure is difficult to establish. In this light, the Committee offers a basic outline for the initial activation of the hospital pharmacy with associated and alternate details. This is intended as a working guide, subject to modification for integration into the individual hospital's master plan.

The Hospital Pharmacy — A "Disaster Preparedness" Plan of Operation

Chief Pharmacist or Alternate

Upon being notified that a state of disaster has been declared and that the hospital's Master Plan is to be activated . . .

Begins coordination of hospital pharmacy action.

1. Alerts pharmacy staff to assume preassigned duties
2. Determines from estimated casualty figures, the need for extra pharmacy skill and the quantities of pre-established drug replenishment orders to be activated
3. Directs secretary to commence telephone notifications
4. Maintains contact with Master Plan's central intelligence

Secretary or Alernate

Consults name, telephone and address file of all enlisted pharmacy plan participants . . . telephones via specially assigned lines:

1. Drug Replenishment sources and/or key agents
2. Local retail pharmacies
3. Delivery and messenger team captains

Modifications to be in order if Master Plan is activated during hours when most pharmacy personnel is absent.

1. A trained "temporary crew" established from responsible "live-in" hospital members will proceed to the pharmacy for initial emergency dispensing duties . . . secretary alternate to be part of this temporary team
2. Chief pharmacist and staff, unless already made aware by radio newscasts or other means, will be summoned by secretary alternate via specially assigned telephone lines.
3. Arrival of pharmacy staff, releases "temporary crew" for other duties.
4. Key agents of drug replenishment sources are notified at homes:
   - 4.1 To activate drug supply orders
   - 4.2 To also report to hospital pharmacy if skill has been enlisted and is presumed needed.
5. Retail pharmacists alerted at homes if place of business is closed:
   - 5.1 To report to a hospital pharmacy if licensed skill is presumed needed . . . or
   - 5.2 To "stand by" at retail quarters

The possibility of failure or disruption of telephone service affecting the hospital's incoming and outgoing communications requires the establishment of a pre-determined understanding among all plan participants to proceed as if alerted, upon being made aware that disaster has occurred or is impending. Two-way radio and human messenger service is the recourse until telephone service is again operable.

Detail

Pharmacy Staff—Preassigned duties

1. Dispensing
2. Bulk Compounding
3. Inventory Control
4. Receiving and location placement of new supplies
5. Supervision of volunteer skill
6. Clerical

Drug Replenishment Supply Sources

1. Wholesale Pharmaceutical Houses
2. Surgical Supply Houses
3. Pharmaceutical Manufacturing Companies and/or warehouses
4. Regional Hospitals Mutual Aid Program
5. Civil Defense Stockpiles
6. Retail Pharmacies

Civil defense stockpiles (which will be available for any disaster), surgical supply houses and a regional hospitals' mutual aid program can provide a variety of hospital needs in addition to pharmaceuticals. These replenishment sources for obvious reasons will best lend their supplies to requisitioning by the central purchasing agency of the hospital. Some Master Plans may call for the coordinated efforts of the chief pharmacist and the central purchasing agent. In all cases however, the pharmacist should be prepared to handle drug procurement by the solo route if the situation should so present itself.

A 10 percent increase of normal hospital pharmacy stock is advocated by civil defense authorities who also recognize that for reasons of economy and space, most hospitals cannot carry drug inventories extended to stockpile quantities.

It has been estimated that the average hospital, when extended to its maximum capacity for handling mass casualties, can be self-sustaining for 5 to 6 hours. Applying this conjecture in terms of pharmaceutical supplies, it appears imperative that back-up replenishment be assured by pre-establishing orders with sources of supply, located within a 100 mile radius of the hospital. This would permit reasonable certainty that deliveries would arrive in time.

An area map portraying location and roadway access to the hospital and point of entry should be supplied all participants.

Replenishment orders should include antibiotics (oral and injectible), plasma and plasma expanders, other assorted mass intravenous fluids, tetanus antitoxin 3000 units and tetanus toxoid, narcotics, short and long acting barbiturates, the newly developed non-barbiturate sedatives and hypnotics, germicidal concentrates, and burn medications according to the accepted methods of the hospital's therapeutic committee. For further detail on emergency drugs, See: THE BULLETIN 7:6 (Nov.-Dec.) 1950 and 9:5 (Sept.-Oct.) 1952, U. S. Civil Defense, Health Services and Special Weapons Defense AG-11-1.

Key agents for the replenishment program are chosen from salespeople and associates of the drug supply sources. They would primarily serve in expediting and processing the supplies.

Dependence upon retail pharmacies for drug replenishment will be alternate to insufficient supplies from the other sources. Retail pharmacists can assist in maintaining 24 hours service in the hospital pharmacy.

Delivery and Messenger Teams

—may be established from first year student nurses or other live-in personnel. Team captains will summon members upon being alerted and report to pharmacy for the following services:

1. Delivery of drugs to the various hospital areas
2. Conveyance of messages and new pharmacy requisitions
3. Assist in receiving and placement of replenishment supplies. These services will relieve overtaxed switchboards or substitute for "in communication" failure. COMMUNITY POLICE SERVICE (automotive) may be assigned to the pharmacy for drug delivery escort or direct pick-up.

C.mmittee on Disaster Preparedness: Ludwig Pesa, Chairman, I. Thomas Reamer, Sister Mary Catherine, Frank Steele, Rex West, Jerome M. Yalon.

Report of Committee on Pharmacy Operated Central Sterile Supply Services

MILTON W. SKOLAUT, *Chairman*

This report contains several recommendations for action and furtherance of the Committee's activities:

1. ASHP policy statement
2. Revised draft of a proposed syllabus in C.S.S. administration
3. Reorganization of the Committee
4. Future recommendations

Policy Statement

When necessary, a policy statement similar to the following should be used concerning the ASHP's stand in this matter. "The ASHP should never state that pharmacists must operate Central Sterile Supply Services and the Committee should not in the near future make such a recommendation. However, where the combination service is wanted there are certain advantages to a joint operation. No chief pharmacist should be forced to operate

this type of service against his, or her, wishes. Nor should this chief pharmacist attempt to remove the service from another department's responsibility, without its complete cooperation. However, when such cooperation is available, the Pharmacy Department can operate the Central Sterile Supply Service efficiently and economically. No combination service has ever operated where there are not certain disadvantages. These disadvantages can be overcome by simply combining the Pharmacy Committee with a Nursing Procedure Committee or having two separate committees. Either a combination committee, or two separate committees, must operate to have the latest Sterile Supply Services available in the hospital, so this is not an added feature."

REVISED DRAFT OF A PROPOSED SYLLABUS IN CENTRAL STERILE SUPPLY ADMINISTRATION

Required Subject—Graduate Study in Hospital Pharmacy
Optional Subject—Recommended: Final (Senior) Year
Didactic Hours
Minimum: 32
Laboratory Hours
Minimum: 32
Total Hours
Minimum: 64

Definition: Central Sterile Supply Administration includes history, development, description and analysis of the operation of a medical and surgical supply, central sterile supply, or any other named department in the hospital supplying a similar service, in terms of both sterile and non-sterile medical and surgical supplies. More specifically, this definition of Central Sterile Supply relates as it might function as an integral part of the Pharmacy Department in a hospital.

Objectives:

1. To outline the scope of this field for the graduate student majoring in hospital pharmacy and to prepare the student for administrative supervision or operation of such a unit.

2. To acquaint the undergraduate student, who is interested in a future in hospital pharmacy practice, with the interesting and highly technical potentialities of sterile supply service administration as it might function in the hospital as a division of Pharmacy Department. To prepare the student with at least the basic concepts of sterile supply service administration so that upon graduation he is better prepared to accept employment in a hospital pharmacy as a staff pharmacist in charge of the Central Sterile Supply Service.

3. To acquaint the undergraduate with the basic medical and surgical supplies, and the concepts of handling, preparation, storage, etc., of them, and to prepare him with at least the basic concepts of these items as they may be stocked and dispensed in the professional pharmacy.

Prerequisite: Final (senior) year standing.

General Considerations: In the graduate study-internship program, the lecture and laboratory periods should be given concurrently in the first semester, or early in the program. Thus the student will be able to follow-up the formal offerings with internship experience in a Central Sterile Supply unit in the hospital.

In the graduate program independent of internship affiliation, or in the undergraduate program, the lecture period and the laboratory period may be taught concurrently. This would be an acceptable technic for the undergraduate elective program.

CENTRAL STERILE SUPPLY ADMINISTRATION

CONTENTS

Reorganization of the Committee

It is recommended that this Committee be established as a Subcommittee of the Minimum Standard Committee. This action is highly desirable since the latter Committee is working with the pharmacy schools to include new material in the five and six year courses. The Sterile Supply Service Course could be added and the Committee could present one course outline to the American Association of Colleges of Pharmacy. With this change, the Chairman of the Subcommittee of Pharmacy Operated Sterile Supply Services would report directly to the Chairman of the Minimum Standard Committee so that material could be included in a

presentation to either the Executive Committee, the House of Delegates, or proposals which are forwarded to the colleges of pharmacy.

It is recommended that a resolution be presented at the April 1956 Convention clearly stating that the combination of these two activities under the Minimum Standard Committee in no way establishes that a Sterile Supply Service is necessary in a pharmacy to meet the Minimum Standard. If this resolution is passed then there should be no fear that this power will be misused in future years without the membership's knowledge.

We recommend that the present committee members be included in this project since it is a problem which will exist for some time, and a knowledge and background of activities is an absolute necessity. Therefore, we would like to recommend the inclusion of Mr. Button, Mr. Flack, Mr. Heard, Mr. Paoloni, Mr. Schwartz, Sister Mary John, Dr. Purdum, and Mr. Skolaut as members of the Subcommittee. We also recommend the appointment of Mr. Salvino as Chairman of the Sub-Committee on Pharmacy Operated Sterile Supply Services.

Future Recommendations

It is recommended that this Subcommittee, under Mr. Salvino's guidance, pursue this course of activity still further in a manner which in no way will embarrass the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, or antagonize or establish unwise relations with other professional groups in the hospital field. Further, that they keep in touch with the hospitals which are establishing such services and see that, wherever possible, proper information is publicized in regard to this combination type service. Further, that when possible, articles of interest and real meaning be prepared by the operating services concerning this type of combination pharmacy operated department. This Committee should pursue also the establishment and refinement of the proposed syllabus and propose that it be included in any future recommendations to the colleges of pharmacy from the Minimum Standard Committee. It is believed that the course as outlined at present is suitable for presentation to the colleges of pharmacy and it is recommended that the Chairman of the Minimum Standard Committee present it at the earliest opportunity, along with other committee recommendations.

When the Minimum Standard Committee presents this material to the colleges of pharmacy and it is found that certain revisions are necessary, it shall be returned to the Sub-committee on Pharmacy Operated Sterile Supply Services for revision with specific recommendations.

Committee on Pharmacy Operated Central Sterile Supply Services: Milton W. Skolaut, Chairman, James F. Button, Herbert L. Flack, Jack Heard, Claude Paoloni, Joseph Salvino, Charles Schwartz, Sister Mary John.

Report of Committee on International Hospital Pharmacy Activities

DON E. FRANCKE, *Chairman*

Since the last Annual Meeting of the SOCIETY the Committee on International Hospital Pharmacy Activities has worked on plans for American participation in the 16th General Assembly of the International Pharmaceutical Federation which was held in London, September 18 to 23, 1955.

At this meeting the SOCIETY was represented officially by President Claude Busick and Secretary Gloria Niemeyer, who served as official delegates on the Council of the Section of Hospital Pharmacists of the F.I.P. A total of sixteen hospital pharmacists and their wives were present at the meeting.

It will be recalled that in 1952 the Executive Committee of the SOCIETY decided that even though the President attended a meeting of the F.I.P., the Secretary also was authorized to attend in order to bring to the SOCIETY the long range benefits obtained by having its permanent officer participate.

Secretary Niemeyer and President Busick ably represented the ASHP on the Council of the Section of Hospital Pharmacists, as well as at the meetings and various other official functions. They are to be commended for their excellent work on behalf of the SOCIETY.

Don E. Francke also represented the SOCIETY in his capacity as Editor of THE BULLETIN. He presented a paper on "The Publications of the International Pharmaceutical Federation" before the Press and Documentation Section. During the meeting he was elected Vice-President of the Section of Hospital Pharmacists and Vice-President of the Press and Documentation Section. Since 1953 he has represented the latter section on the Council of the F.I.P.

Secretary Niemeyer has prepared a report of the meetings of the Section of Hospital Pharmacists. This report has been published in the September-October 1955 issue of THE BULLETIN and you may refer to it for specific details of the meeting. A copy of Miss Niemeyer's report has also been transmitted to Co-Chairman Newell Stewart of the A.Ph.A.'s Committee on International Relations for incorporation into the official report of the American delegation.

Before closing this portion of the report I would like to express my deep appreciation to the officers and members of the International Pharmaceutical Federation, the Pharmaceutical Society of Great Britain, and the Guild of Public Pharmacists for their gracious and generous hospitality. Their numerous expressions and acts of goodwill and good fellowship delighted and warmed the hearts of our delegation. It was indeed a most pleasant experience for the members of the American delegation. We are very grateful to our colleagues beyond the seas for their many kind and thoughtful acts.

The next international meeting with which the SOCIETY will be concerned is the Fourth Pan-American Congress of Pharmacy and Biochemistry, which will be held in Washington, D. C. in the fall of 1957. Although it has not yet been decided just what will be the role of the affiliated organizations in putting on this Congress, there will undoubtedly be a Section of Hospital Pharmacists organized. It is possible that the SOCIETY may be requested to arrange the program for this Section as well as to participate in the over-all development of the Congress.

Since the SOCIETY has gone on record pledging its cooperation to the American Pharmaceutical Association in the organization and development of this international meeting in 1957, no further official action is deemed necessary at this time.

Report of Committee on Isotopes

CLIFTON LATIOLAIS, *Chairman*

During the past year the Committee on Isotopes concentrated its efforts toward (1) the preparation of an equipment list and floor plans for a radioisotope pharmacy, (2) the compilation of a list of suppliers of instruments and equipment used in handling radioisotopes, and (3) the compilation of a supplement to the bibliography on radioisotopes.

The basic equipment list for a radioisotope pharmacy should serve as a guide for equipping a laboratory which is to be used for procuring, storing, preparing, and dispensing isotopes for clinical use. This list, however, does not include equipment necessary to conduct any type of research.

The suggested floor plans consist of two rooms—one for storing, preparing and dispensing radioactive pharmaceuticals, and the other room for the dual purpose of (a) patient uptake measurements, and (b) the assay of radioisotopes and specimens. For a more extensive isotope program the radioassay and uptake measurements should be done in separate rooms. On the other hand, the radioisotope pharmacy could occupy less space for a more limited program such as in the smaller hospitals.

The list of suppliers of nuclear instruments and equipment used in handling radioactive material is submitted for use as a guide and it is not implied that such a list is complete.

The Bibliography in this Report is a Supplement to the Bibliography in the 1954-55 report of the Committee on Isotopes. This Supplement and the original Bibliography include comprehensive information on the various aspects of radioactivity of interest to the hospital pharmacist.

The procurement, storage, preparation, and dispensation of radioactive pharmaceuticals lie well within the province of the hospital pharmacist. His professional skills can be effectively utilized in the clinical as well as the research aspects of a well-integrated radioisotope program in the hospital. The hospital pharmacist, therefore, should make every effort to assume the responsibility of handling radioactive pharmaceuticals.

It is hoped that local, regional, and national groups of hospital pharmacists will consider the inclusion of topics on radioactive isotopes in their future program planning. The objective of such planning should be to train hospital pharmacists so that they may safely handle radioactive pharmaceuticals.

Perhaps the accomplishments of the Committee on Isotopes has provided the hospital pharmacist with some of the basic material necessary in accomplishing this objective.

Committee on Isotopes: Clifton Latiolais, Chairman, Arthur Dodds, Paul Parker, and Evlyn Gray Scott.

BASIC EQUIPMENT LIST
FOR A RADIOACTIVE ISOTOPE PHARMACY

Autoclave, small
Bricks, lead
Burettes
Can opener
Cart, stainless steel
Cups, paper
Badges, film
Gloves, rubber
Graduates, various sizes
Hot plate

Monitoring instruments—Juno, Geiger Mueller, Cutie pie.
Meters, pocket
Needles, hypodermic
Pipettes, various sizes
Pipettors, remote controlled
Pipettors, bulb type
Pipette washer, automatic
Pliers
Pots, lead
Pots, Lucite
Paper, absorbent, roll
Ring stands
Rubber tubing
Scintillation detector & scaler
Syringes, various sizes
Syringe valves, 2-way
Syringe holders, Lucite
Shoe covers
Tongs, long handle
Tongs, short handle
Trays, stainless steel
Typewriter

Sources of Supply For Nuclear Instruments and Equipment Used in Handling Radioactive Material

Atomic Instrument Co.
84 Massachusetts Ave.
Cambridge 39, Mass.

Beckman Instruments, Inc.
Berkeley Division
2200 Wright Ave.
Richmond, Calif.

Burndept Limited
Nucleonics Division
Erith, Kent, England

Cambridge Instrument Co., Inc.
3774 Grand Central Terminal
New York 17, N. Y.

Ekco Electronics, Inc.
American Traidair Corp.-U. S. Agent
Chrysler Building
405 Lexington Ave.
New York 17, N. Y.

Keleket Instrument Div.
266-1 W. Fourth St.
Covington, Ky.

Leeds & Northrup Co.
444 N. 16th St.
Philadelphia 30, Pa.

Minneapolis Honeywell Regulator Co.
Industrial Division
Philadelphia 44, Pa.

Nuclear Instrument & Chemical Corp.
223 W. Erie St.
Chicago 10, Ill.

Nuclear Measurements Corp.
2460 N. Arlington Ave.
Indianapolis 18, Ind.

N.R.D. Instrument Co.
6427 Etzel Ave.
St. Louis 14, Mo.

Nuclear Science & Eng. Corp.
P. O. Box 10901
Pittsburgh 36, Pa.

The Radiac Co., Inc.
489 Fifth Ave.
New York 17, N. Y.

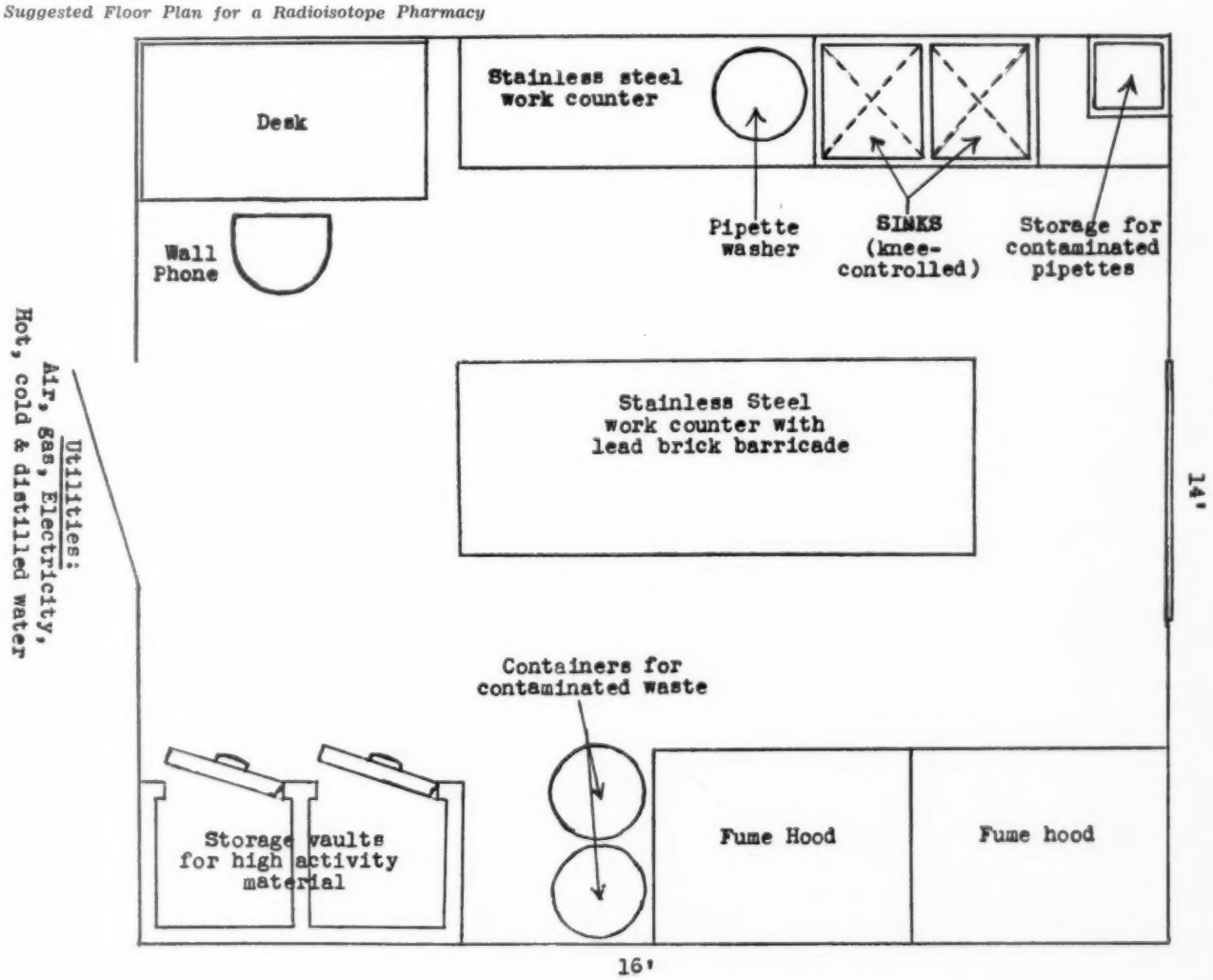
Technical Measurement Corp.
140-142 State St.
New Haven, Conn.

Tracerlab, Inc.
130 High St.
Boston, Mass.

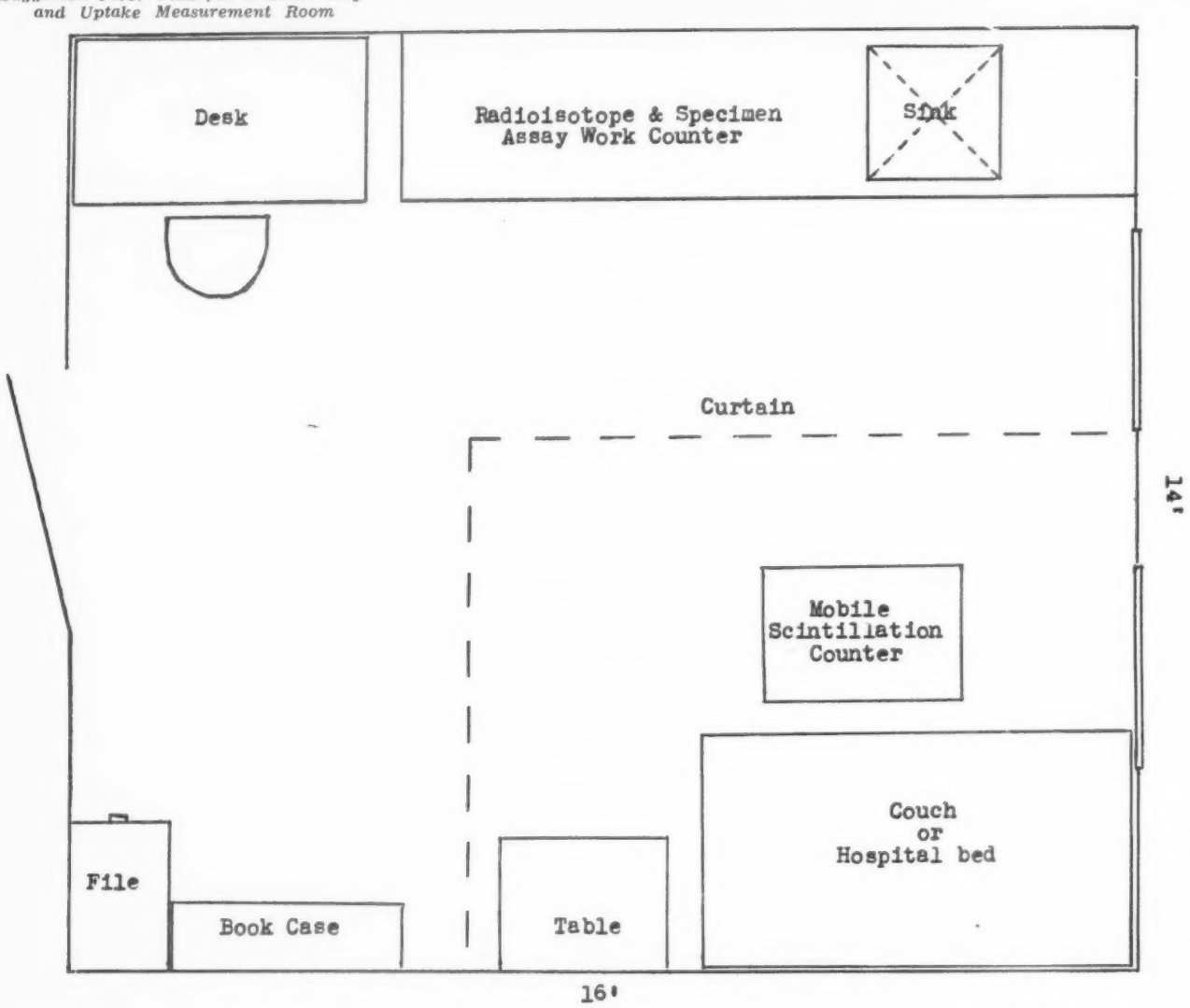
Universal Atomics Corp.
19 E. 48th St.
New York 17, N. Y.

Victoreen Instrument Co.
5806 Hough Ave.
Cleveland 3, Ohio

Suggested Floor Plan for a Radioisotope Pharmacy



Suggested Floor Plan for a Radioassay and Uptake Measurement Room



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*For original list of references, see Bull. Am. Soc. Hosp. Pharm. 12:372 (July-Aug.) 1955.

Report of the Advisory Committee on Hospital Pharmacy Examination

RICHARD R. SHERWOOD *Chairman*

This is the second year of activity for the Advisory Committee on Hospital Pharmacy Examination. As you know, the Committee was established to provide examination material in the specialized field of hospital pharmacy. This material is then turned over to the Professional Examination Service of the American Public Health Association where the "test items" are examined for fairness and suitability in the evaluation of qualifications necessary and desirable in candidates for responsible positions in hospital pharmacy. This material, in the form of a professional examination, is then available to Federal, State, and private agencies.

It appears that a uniform and accepted method of checking qualifications of applicants for positions in the field of hospital pharmacy is becoming mandatory. When acceptance and implementation of hospital pharmacy intern training curricula and minimum standards is fully realized for all hospitals, hospital administrators will need and will be looking for some method of qualifying the people carrying out the important professional services rendered by pharmacists.

A total of about 1,500 "test items" specifically related to hospital pharmacy would seem to be necessary to adequately cover the field. Last year the Committee submitted 300 "test items" and it is with a great deal of pleasure that I am able to report that another 262 test items have been submitted to the Society for forwarding to the American Public Health Association.

Recommendations

It is recommended that a Committee be appointed to continue this work during the coming year and that the Committee Chairman be empowered to add to his Committee as he sees fit. At the discretion of the Committee Chairman, specialists in the various phases of hospital pharmacy practice and administration might be selected to compile material in their respective fields.

It is further recommended that the Pharmacy Consultants to The American Public Health Association report to the Society at the Annual Meeting the number of test items accepted from the past year's work and the total number of acceptable test items compiled.

In that the test or examination material accepted by The American Public Health Association will have been submitted by many very active and well-qualified people in the field of hospital pharmacy administration, intern training and education, it will reflect the professional knowledge, techniques, background, and specific abilities desirable and necessary in well-qualified hospital pharmacists. I believe that we can all agree that anyone attaining a satisfactory grade on such examination material will have experienced a well-rounded and adequate internship and training period.

Therefore, it is recommended that the Executive Committee of the American Society of Hospital Pharmacists diligently study the possibility of utilizing this examination material as a means of evaluating internship training in all hospitals, at least until some adequate method of examining, policing, and accrediting institutions engaged in a Hospital Pharmacy Intern Training Program is devised and implemented. Since State Boards of Pharmacy do not police hospital pharmacy as they do retail pharmacy, accreditation on this basis and on a national level, through the A.Ph.A. and the ASHP, will serve to discourage inadequate training methods and facilities and provide a uniform and self-enforceable standard. It must be realized that it may take several years to complete the test material, but it is not too early to give serious consideration to this proposal.

My sincere thanks to President Busick for the opportunity to continue this work, and to each and every one of the Committee members for a job well done. Their cooperation and effort on this project is indicative of the intense and growing interest we all have in the future of hospital pharmacy.

Advisory Committee on Hospital Pharmacy Examination: Richard R. Sherwood, Chairman, James Bleadingheiser, Donald C. Brodie, Joseph P. Crisalli, Clifton Lord, Elmer M. Plein, Charles Schwartz, Sister Mary Carmelia, Martin Yanis.

Report of the Committee on Economic Poisons

CLARA HENRY, *Chairman*

Before beginning my report I wish to sincerely thank the members of this Committee. No chairman could wish for better workers than it was my good fortune to have. Their response to my insistent letters was prompt, aware, and full of suggestions for the accomplishment of our objectives. My grateful appreciation to Sister M. Cherubim, Marie Kuck, Bernard Conley, George Phillips, and Eddie Wolfe.

To Henry Beard, my gratitude for the groundwork he so skillfully laid as last year's chairman, and for the generous way he shared all his findings, correspondence and accumulated literature with us.

Taking the torch from Mr. Beard, we began our work with a formulation of objectives, which simply stated are:

1. Selection of a work of reference.
2. Maintenance of selected work — keeping it up to date.
3. Education — of fellow pharmacists, allied medical associates, and the public.
4. Cooperation.

This program sounds easy of accomplishment, but we soon found that it takes a prodigious amount of searching, sorting, discussing and evaluating. We arrive at this point with a mixed feeling of frustration and gratitude. The sense of there being so much to do and so little time in which to carry it forward, would be overpowering did we not realize that this program is a long-range one. Further, whatever small progress we make is a contribution toward the desired objective. We have been inspired when those to whom we talk or write respond so quickly and positively, offering help of all kinds toward solving this serious problem of Accidental Poisoning.

The first work considered was a compilation of the Project Committee of the Northern California Society of Hospital Pharmacists — *Poisonings From Household Items* — now being studied by the Editor of The Bulletin as to possibilities for publication. A work begun in 1952 and presently being revised, it contains approximately 1,250 items of POTENTIAL DANGER found in the home medicine cabinet, under the sink, in the barn or garage, garden or orchard. These are listed by trade name in alphabetical order, along with the toxic ingredient and suggested treatment. In addition they are classified into five general categories: 1. Drugs and Medications; 2. Cleaners, Solvents, Paints and Polishes: 3. Insecticides and Pesticides; 4. Cosmetics; 5. Hobby and Photographic Supplies.

The Committee members who have seen this work have pronounced it a "good beginning," but no further action has been taken by this Committee except to recommend further study of its possibilities.

The second work coming to our attention is a manual entitled *Accidental Poisoning in Children*, compiled by the Accident Prevention Committee of the American Academy of Pediatrics. Similar in format to the California work but differing in that its contents are the reports of the toxicology, treatment, and medical comments on the substance responsible for the first 400 cases of accidental poisoning treated at the Chicago Poison Control Center. It covers more clinical toxicology than the first mentioned compilation. Since the first or pilot edition has recently been withdrawn from circulation for the purpose of revising and improving, it is not at this writing available for consideration. However, Dr. E. H. Christopherson, Secretary of the Accident Prevention Committee, assures us that a new edition will be released early this summer.

The third major work catching our attention is one now in the hands of the publishers, compiled by the Pharmacology Department of the University of Rochester, School of Medicine and Dentistry, under the direction of Dr. Harold Hodge, assisted by Marion Gleason and Mr. Gosselin. It will be known as *Clinical Toxicology of Commercial Products* with the subtitle "Acute Poisonings, Home and Farm." Begun early in 1951, it contains a list of 15,000 trade-name items and is divided into seven sections: 1. Emergency treatment; 2. Ingredients Index; 3. Therapeutics; 4. Supportive Treatment; 5. Trade Names Index; 6. General Formulations and 7. Names and addresses of all manufacturers whose names appear in section 5.

Publication is expected to be in September and the probable price, including the supplement, is $10.00.

Another excellent work recently published by the Lange Medical Publication of Los Altos, California, is a *Handbook of Poisons* by Doctor Robert H. Dreisbach, Professor of Pharmacology at Stanford University, School of Medicine. This work is compact, comprehensive, full of valuable information ingeniously arranged and cross indexed.

One of our best sources of antidote information is the A.Ph.A. Manual No. 101, which came to each of us with the *National Formulary*. Additional copies are available from headquarters.

The United States Department of Public Health has a restricted work, *Trade Names Index*, containing the formulation of more than 4,000 compounds, but at the present time is available only to authorized Poison Control Centers.

To help us maintain files of quickly available poisoning treatment information, Mr. Wolfe suggested that we request drug manufacturers to include toxicology and antidotes in their catalogues and/or enclosure literature; or in the event that was not feasible, to somehow furnish the pharmacist with that information so that inquiries by physicians could be quickly and satisfactorily answered.

We began our campaign with letters to the Medical Directors of eight of the major companies. To date, six replies have been received, all of which are helpful.

It is well known that the majority of poisonings in children result from medications. Therefore, if all pharmaceutical houses gave information in the above manner, over half of our task of implementing and maintaining a manual of toxicology would be solved. We could then concentrate our efforts on other household and orchard products, and cosmetic and hobby materials whose ingredients are often difficult to trace.

All of the replies, however, indicate a desire on the part of the drug manufacturers to cooperate, and they encourage this Committee to recommend that these letters be continued until a much larger group of firms have given us their views on this very important question.

Another suggestion on implementing a manual is that whatever work is selected, a loose leaf type of binder be used so that additions and revisions could be added from time to time, the Committee on Economic Poisons making the necessary revisions. This is not a recommendation but merely a suggestion. We are aware that an entirely new approach to the problem of accidental poisoning information may unfold as other minds are brought to focus on it.

One phase of the hospital pharmacist's part in combatting this poisoning problem was suggested by Sister M. Cherubim, and while the present Committee has not as a whole explored this idea, it bears consideration by future committees. It is suggested that the country be divided into as many areas as there are members of the Committee and let each member survey his area by means of questionnaires on maintaining antidote information, emergency supplies; number and kind of poisonings; treatment and outcome. A compilation of the total information would give a great store of data and help in establishing a Master Plan. This plan then could be integrated into the plans of the Poison Control Centers.

Following this pattern of action, the Midwest Association of Sister Pharmacists set up a Committee on Economic Poisons with Sister Cherubim as chairman last November, with the express purpose of making a survey on the accidental and suicidal poisonings treated in each hospital of the group. The purpose being — "To make the members conscious of emergency admissions of accidental poisonings, to promote interest toward establishing organized emergency units with literature and antidotes."

The survey produced some very interesting data. At one hospital, 67 children between the ages of 2 and 5 were treated for poisoning. Of this number, 27 were for aspirin. The pattern closely resembled the figures of the Chicago Poison Control Center with kerosene and petroleum products second, barbiturates third, etc. It also called attention to a rarely referred to aspect of poisoning, namely "Geriatric Poisons."

This type of activity taken by the Midwest Association of Sister Pharmacists is worth copying by other groups of hospital pharmacists.

The display here is a direct result of a wish made early in our work by Sister Cherubim. We had hoped to have the American Medical Association display "Accidental Poisoning in Children," but since it had been committed elsewhere for this week, we were not able to make use of it. However, Mr. George B. Larsen, Assistant Director of Exhibits at the A.M.A. Headquarters in Chicago, offers it to us for subsequent meetings if we speak early enough. We suggest that the next Committee investigate its use.

In final analysis, *Education* and *Cooperation* can be treated as one objective. The *Journal of the A.M.A.*, December 17th, 1955, carries an article by Dr. Jay M. Arena on the problem of accidental poisoning as it stands today. He stresses education as a big factor in cutting the toll from the ingestion of noxious substances. Education, not only of the public by every possible means; but, because physicians themselves are sometimes unaware of the potential killers present in harmless appearing items, he asks a campaign of education for the physician also. In this he requests the help and cooperation of the pharmacist who by means of information and labels can be a valuable assistant. He also asks our help in campaigning for stricter labeling laws and for safety containers for kerosene, cleaners, insecticides, etc.

Dr. Arena asks that the special label "KEEP OUT OF REACH OF CHILDREN" be affixed to all prescriptions for dangerous drugs. Several hospitals have been doing so for some time. However, our attention is directed to the fact that to a sensitive or apprehensive patient such a label might be disturbing. Mr. Phillips of the University Hospital at Ann Arbor suggests that we have the approval of the attending physician before using said label. He also reports that in order to identify and quickly treat the ingestion of more than dosage amounts of prescription items, the NAME OF DRUG appears on the label, together with directions for use on all prescriptions leaving the Pharmacy, EXCEPT WHEN OMISSION IS REQUESTED BY THE PHYSICIAN. There is a check on the prescription blank for such a designation. This idea is well worth copying.

We can as pharmacists educate our own associates by bringing to our meetings information on accidental poisoning, treatment and antidotes; by writing for our local papers or organization bulletins articles designed to make all readers more aware of the seriousness of the death rate from accidental ingestion of so called "harmless" items. We should campaign with the A.M.A. Committee on Toxicology for stricter labeling laws and stronger control of the sale of garden chemicals.

Local chapters of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS should try to have one program of the year devoted to this subject. Material of interest could no doubt be borrowed from the Committee on Toxicology, from the Accident Prevention Committee of the American Academy of Pediatrics, from the American Association of Public Health as well as the Research and Reference Division of the Food and Drug Administration. We should help in the activities of the poison control centers, proffering complete cooperation.

It could easily be a profitable public relations gesture if once in awhile one or more of our members appeared at a P.T.A., Red Cross, Scout or other meeting to talk on this subject. Our organizations could purchase for a small sum a number of the F.D.A. charts, "PROTECT YOUR FAMILY AGAINST POISONING," to distribute wherever indicated. Such activity is bound to educate the layman to become a combatant against poisoning accidents. It is time we became vocal not only in our sorrow that too many children die accidently each year, but also in our indignation that such tragic happenings can occur.

Since any personal meeting of the Committee on Economic Poisons has not been possible during the past year, we have had to rely entirely on letters expressing our opinions, airing our criticisms, voicing our approval, adding suggestions and subtracting the superfluous. We have finally resolved all of our work into the following statements:

First of all, we ruefully admit that in the light of the recent orders by the F.D.A. on the labeling of aspirin and salicylate containing drug products with "KEEP OUT OF REACH OF CHILDREN" that it would have been better had pharmacists instituted such procedure as a safety measure BEFORE the F.D.A. took action.

We acknowledge that the 1955-56 Committee on Economic Poisons has barely scratched the surface of this problem. There is yet a great deal to be done. However, we have confidence in the ability of all hospital and other pharmacists to follow thru on this subject.

Recommendations

We are also unanimously in favor of the following recommendations:

1. THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS should be continuously and constructively aware of the hazards and problems of poisonings and therefore should continue indefinitely the Committee on Economic Poisons.

2. The ASHP, thru its Committee on Economic Poisons should cooperate in every possible way with the Committee on Toxicology of the American Medical Association; with the American Academy of Pediatrics; and the American Association of Public Health; exchanging information and data wherever feasible.

3. The ASHP, in order to disseminate valuable information on the serious subject of accidental poisoning, should publish either in THE BULLETIN or as reports, any noteworthy articles pertinent to the problem.

4. Each local chapter of the SOCIETY should use every opportunity to remind their members of the problems and possible solutions thereto of accidental poisonings.

5. The ASHP should sponsor every type of program aimed at educating the public on the dangers lurking in the home. By this we mean the membership should be urged to make it a personal responsibility to pass along by word of mouth, by labels, by information to nurses, physicians, and other pharmacists, by articles to local papers or regional professional publications as much information as can be obtained in order that the public may be enlisted to help cut the incidence of accidental poisonings from household items.

6. The letters to the drug manufacturers begun by the present Committee and asking that toxicology and antidote material be included in catalogues and enclosure literature should be continued by subsequent committees until more firms have expressed their stand on this important question.

Our sincere thanks go to all who helped so generously. Our contribution would be meager were it not for their assistance. We wish to voice our appreciation in particular to the following: Bernard Conley, American Medical Association; Dr. Edward Press, American Public Health Association; Dr. E. H. Christopherson, American Academy of Pediatrics; Dr. Irvin Kerlan, Food and Drug Administration; and Dr. Jock L. Graeme, Ciba Pharmaceuticals, Inc.

We respectfully request that copies of this report be sent to the above addresses.

Committee on Economic Poisons: Clara Henry, Chairman, Bernard Conley, Marie Kuck, George Phillips, Sister M. Cherubim, Eddie Wolfe.

Report of The Chairman of The Policy Committee

ROBERT P. FISCHELIS, *Chairman*

I am very glad to have the opportunity to speak for the Policy Committee of the Division of Hospital Pharmacy. Under the arrangement that we have at the Headquarters Building of the American Pharmaceutical Association, the Secretary of the Association is the Chairman of the Policy Committee. As you know, the Director of the Division is Dr. Francke, and the Assistant Director is Miss Niemeyer. The Policy Committee has, as always, worked in very close union with the staff of the Division of Hospital Pharmacy.

As you know, the Policy Committee is composed of four members of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, two members from the American Pharmaceutical Association, one member from the American Hospital Association, and one member from the Catholic Hospital Association. So we have a Policy Committee which covers not only hospital pharmacy, but also hospital administration and pharmacy in general through the American Pharmaceutical Association.

As we have been reporting from year to year since the organization of this Division, I am sure you have noticed that there has been considerable progress. The success of the Division has been due to those who have been directing its activities. The Policy Committee has been very happy about the manner in which these administrative actions have been carried out and the uniformly good response on the part of members of this SOCIETY and members of the various chapters throughout the United States to the services that have been instituted.

At this time I cannot help but refer to the fact that we believe we have pioneered in the manner of joining the services of a specialty group with those of the American Pharmaceutical Association, which of course is interested in pharmacy as a whole, in a way that has been acceptable to both organizations. We are very confident that this procedure and this happy arrangement—and the success of it—will continue.

I do not propose to report for the Division. Dr. Francke will do that. I do want to refer to several things that the Policy Committee has had and will have under consideration within the next few months.

Now, the Policy Committee has had no meeting since our last convention at Miami Beach. We have, however, been in contact by telephone and also by letter, and we expect to hold a meeting of the Policy Committee within a very short time after this convention.

Some of the things that you will be discussing and deciding at this meeting will become policies of the SOCIETY. These matters will be brought, of course, to the attention of the Policy Committee for implementation by the Division.

The Division, as you know, is the operating unit which makes it possible to implement actions of the A.Ph.A. and the ASHP on matters of hospital pharmacy.

Pharmaceutical Audit

One of the principal accomplishments stimulated by the Division and activated, to an extent at least, by the Policy Committee is the grant from the United States Public Health Service for the audit of pharmaceutical service in hospitals. This is a project that had been lying dormant for several years; not because it was not adequately nurtured by the Division, but because in the discussions of the Policy Committee there were numerous revisions in planning as to just how a project of this kind should be undertaken. We first encountered some opposition on the part of hospital administrators to the development of information through the questionnaire system. They are all allergic to questionnaires and that is understandable, of course, considering the number they receive.

We have had the cooperation of the Public Health Service through its Hospital Division in working up outlines for this project. Some time ago there were supposed to be funds available for carrying out projects of this kind. These funds were curtailed, however, and some of the projects were postponed. But the minute additional funds became available, we were informed that the time was propitious to renew the application. The application was renewed and, as you know, a grant of $36,000 was alloted by the Public Health Service in the first group of allotments that were made under the revised provisions.

We were very fortunate indeed that the Director of the Division, who is the principal investigator under this grant, was in a position to go to work immediately on the audit. So, on March 1st, we actually began work on the audit of pharmaceutical service in hospitals. Mr. Latiolais was engaged as the first investigator under this grant and is at work with Dr. Francke at Ann Arbor now. He will tell you more about this, I'm sure.

Well, that indicates that patience is rewarded from time to time at least, and that in this instance it was well to be ready, to have our outlines prepared, to have impressed the Public Health Service with the importance of an investigation of this kind, and to have their recognition of pharmacy as one of the very important services in the field of hospital care.

We look for very substantial results from the implementation of this grant. It has a full year to run, and is subject to renewal. In fact we have already asked to have it renewed because it is quite apparent that it will require more than a year to bring out of the study the type and amount of information we need.

So you can feel that there is definite recognition of what you have accomplished in your individual hospitals. The grant for this audit also indicates the impression that has been made upon those who have these grants in charge and who are asked to give advice on those to whom these grants should be given.

Internship Accreditation

Another project that has been taking our attention is the internship accreditation program. Just as in the case of the development of the Minimum Standard for Pharmacies in Hospitals, so in connection with the development of the internship accreditation program we have made haste slowly. We have gotten the suggestions and recommendations from those who have had the internship problem before them. We have recognized the different phases of that problem—that there is an educational phase as well as one of supplying services.

At the moment we are dealing with this study on a pilot basis, through the appointment of a task force headed by Mr. Flack and ably supported by some of your other members. They are engaged right now in a study of everything that has been submitted in the way of suggestions. They have even had the good fortune to have before them the answers to a number of questions which were asked in a questionnaire for the purpose of working out a program of evaluation of present internship programs.

Now, accreditation is a delicate subject to discuss in any group. The hospital pharmacists are no exception. There are accrediting agencies which consider themselves policing agencies. They feel that when you adopt a series of standards, you should arbitrarily determine whether or not these standards are being endorsed. If they are endorsed, fine; if they are not endorsed, then something in the way of a demerit should be attached to the institution or the group that is not adhering to the standards.

Here in hospital pharmacy the policy has been, right along, one of conservatism with regard to interference in the active management of hospitals and in the active management of hospital pharmacies. There has been realization that growth has been rapid, that many situations required improvisation of various procedures to accomplish the objectives, and that one cannot lay down at the beginning standards which are absolute—standards which are fully accurate and representative of what you are trying to accomplish.

So we have been feeling our way. We have been getting the individual hospital groups, especially those associated with pharmacy departments and hospital management, to cooperate and to go along with the idea of developing as nearly as possible a system of internship which will fit the various types of hospitals in which patient service is given and which will be adaptable to the facilities which they have available.

I am sure that at the appropriate time you will receive additional information about how this accreditation program is proceeding. We have hopes that when the task force completes its recommendations to the Policy Committee, ways and means will be found to implement its recommendations.

Nothing is static in hospital pharmacy these days. It is all proceeding at a pace which may sometimes seem slow, but as you look back over the years, you see a wealth of accomplishment. Again, Dr. Francke will probably touch on this some more when he reports as Director of the Division.

The final thing that I would like to comment on from the standpoint of the Policy Committee is that we have before us a new development which I do not believe is going to become a problem, and that is to provide for the proper succession of the activities of the Division on the same high plane and with the same degree of success that it has met with so far. As some of you are aware, Dr. Francke has resigned as Director of the Division and Miss Niemeyer is resigning as Assistant Director of the Division. We are also very happy to be able to say that the retiring Division Director and Assistant Director are going to be as closely associated with us as they possibly can, and have offered their services. These services will certainly be accepted and we are going to give you a very smooth transition because of this fine cooperation we are receiving on all sides.

The matter of personnel will be something of a problem, in that it will require new people to take over activities that have already been well developed and have become a part of the service you expect.

I am sure that you can anticipate the same degree of diligence and interest and desire to be of service from all of us who are going to be associated with the Division of Hospital Pharmacy as you have in the past. We will keep you informed of the changes that will be made. At this time we are happy to be able to say that your incoming President will be associated with us on a full time basis at the Headquarters Building to carry forward the work of the Division.

The facilities at the Headquarters Building of the A.Ph.A. are certainly superior to anything that could be supplied at the moment for hospital pharmacy development. You know of our own expansion plans with regard to space and with regard to staff. We hope that one of these days within the next two years you will be coming to Washingon and seeing an enlargement of the facilities there devoted to hospital pharmacy.

The American Pharmaceutical Association went into this joint effort of establishing the Division of Hospital Pharmacy because it knew that anything that was going to be done for hospital pharmacy would benefit pharmacy as a whole. We have been very fortunate in having people administering this program who have been broad in their views, who have been thinking of pharmacy not as something narrowly belonging to hospital pharmacy, but who have thought of pharmacy as a whole as they have given their services.

Increasingly the library facilities have been developed to serve hospital pharmacy, as well as prescription practice in general and pharmacy in general. That is going to continue.

Thank you for your continued support, and thank you also for the initiative that your Society and your chapters have taken in aiding us with our proposed building plans, not only in the planning, but also in the financing. We are very happy about the initiative you have taken along that line, and the example which you have set for other organizations.

Report of the Division of Hospital Pharmacy

DON E. FRANCKE, *Director*

The following report is a summary of the activities being carried out by the Division of Hospital Pharmacy of the American Pharmaceutical Association and the American Society of Hospital Pharmacists. Since this is my final report as Director of the Division, I shall attempt to present a general outline of the current status of Division activities as a matter of record.

The Division is a unique organization which was conceived and developed by Dr. Robert P. Fischelis to meet an unusual need. The problem was to develop a unit to serve the requirements of the A.Ph.A. which, as the national professional organization, is interested in pharmacy wherever it is practiced, and at the same time one which would serve the needs of the ASHP which, of course, is the national professional organization of pharmacists who specialize in hospital practice. This unit had to be developed in such a manner that it could serve both organizations but at the same time would not alter the autonomy of the American Society of Hospital Pharmacists. Experience shows that this has been accomplished.

The Staff of the Division consists of two full-time personnel, Miss Gloria Niemeyer, who is the Assistant Director of the Division as well as Secretary of the Society and Associate Editor of The Bulletin, and Mrs. Virgina Dean who works with her. These two people carry on the day-to-day activities of the office. Since 1949 I have served as Director of the Division on a part-time basis and without remuneration. Dr. Fischelis, Secretary of the A.Ph.A., has executive supervision over activities in the Division office and, in addition, maintains close contact with hospital activities in his role as Chairman of the Policy Committee of the Division.

However, the Division serves not only the interests of the A.Ph.A. and the ASHP. In addition, it serves, at least to some extent, those of the American Hospital Association and the Catholic Hospital Association. This is accomplished through representation on the Policy Committee of the Division of Hospital Pharmacy. We feel very fortunate to have on our Policy Committee two hospital administrators so well informed and so interested in pharmacy as are Dr. Robert Cadmus and Sister Mary Stephanina. The Policy Committee, as its name implies, is a policy formulating body which provides guidance for the long-range objectives of the Division.

Pharmaceutical Audit

One current Division project in which you will undoubtedly be interested is the Audit of Pharmaceutical Service in Hospitals which is the title of a study being made under a grant from the United States Public Health Service to the American Pharmaceutical Association. This grant is for $36,000. It is interesting to note that the actual proposal for this project originated about five years ago. We are very pleased to have received this grant which will make possible the study of many important phases of hospital pharmacy service.

The purpose of the Audit is to study methods of improving and extending pharmaceutical service to patients. As Dr. Fischelis has said, I will direct the Audit while Mr. Clifton Latiolais will be the Assistant Director and will devote his full time to the project. With reference to the methods by which the program will be carried out, we plan first to make pilot studies, and of course, we will start in one state and then we may go to two or three other areas of the country.

It is important to recognize that we are not making a survey in the usual sense of the word. We are not so much concerned with finding out and reporting what is being done as we are in finding out what is being done and then selecting the best type of service and the best type of pharmaceutical practice, and to bring these things together and to make recommendations.

One of the easiest things to do would be to draft a questionnaire and to send it to all hospital pharmacies in the country and ask questions about how many have a pharmacy committee, how many have a formulary, and so forth. However, it is essential to delve far deeper into the problems of hospital pharmacy service if we are to achieve significant results.

Mr. Latiolais and I are also working directly with the Survey Research Center at the University of Michigan and the more we get into the problem, the more complicated we find it. The great complication comes in designing a survey which will provide meaningful data for analysis so that helpful recommendations may be made.

Along with the main objective of determining the best practices and the extent and quality of pharmaceutical service in the various hospitals, we will also have parallel projects in which we hope to go a great deal deeper into certain subjects. These might be termed as testing certain basic assumptions.

As an example, many of us say that the formulary system is a good thing. That is something which we have pretty much assumed only because we have proved certain things in isolated instances. However, we want to know whether the formulary system actually does promote rational therapy; whether it actually does save money, and how much; whether it interferes with the professional prerogatives of the physician; its effect on the pharmaceutical service in the hospital; whether the patient receives as good care under the formulary system; and so forth.

Some of the other things that we want to do is to find out how the medical staff perceives hospital pharmacy; what they perceive the role of the hospital pharmacist to be; what are his limitations; what are the impediments to greater service from the pharmacist; and what are the areas where the pharmacist can give greater service.

A sort of parallel area would be: How does the pharmacist perceive his own role in the hospital, and we think that that will be very important.

As a matter of general information, the part of the Audit we are on now is the planning stage. This sounds like a fairly easy thing, but considering a general statement such as one in the original proposal:—To determine the elements required to perform the pharmaceutical services as established by the facts obtained in the survey—we find it more difficult than it appears. Thus, careful consideration in the planning stage is essential.

When one begins to analyze sentences such as the above, one finds that they do not mean very much, or, at least, if one sends them out in a survey, they will mean a hundred different things to a hundred different people. So we have to take each of these various aspects of the total pharmacy service and every aspect of the Minimum Standard and break them down into a great number of questions which, when

they come back and are analyzed, will actually give us information which will help us in projecting something which can be utilized.

The second step, following the planning stage, will be to collect the data. The next big, important problem will be analyzing this data. Next will be the processing or preparing of the report, and then, recommendations for the utilization of this report.

In closing this part of the report, I would like to say that the success of this survey, after we are through the planning stage, is actually going to depend on your cooperation, as individual hospital pharmacists, and on the cooperation of the affiliated chapters of the SOCIETY.

In fact, one of the reasons why we believe that we will be able to get good response to all of our personal interviews, questionnaires, and so forth, is because we have such a very well organized SOCIETY, so many active affiliated chapters, and such a very active and high interest among all hospital pharmacists. In addition, we are going to request and need the cooperation of both the American and the Catholic Hospital Associations.

Education and Internships in Hospital Pharmacy

A. *ASHP Activity.* As interest in hospital pharmacy has developed, there has been an increasing demand for special training in the field, both academic and on the training level. From time to time, the SOCIETY'S committees have developed teaching aids and the schools have been encouraged to inaugurate courses in hospital pharmacy. Through the Division we have kept up-to-date information on the status of programs in hospital pharmacy, both on the graduate and the under-graduate level. A compilation of information available on this subject was published in THE BULLETIN (May-June) 1955.

B. *Evaluation of Internship Programs.* Early in 1955, the Director of the Division of Hospital Pharmacy compiled a suggested questionnaire for evaluating internship programs in hospital pharmacy. This was based on the Minimum Standard for Pharmacy Internships in Hospitals which was orginally worked out by a SOCIETY committee and later accepted by the Policy Committee of the Division of Hospital Pharmacy. The questionnaire was reviewed and revised at the February 27, 1955 meeting of the Policy Committee. At that time, plans for carrying out an evaluation program were also discussed. It was then agreed that an evaluation of internships is essential in view of the following basic needs:

1. To establish a basic level of training in hospital pharmacy.
2. To provide a basis for approving an institution to offer training in hospital pharmacy.
3. To give the Boards of Pharmacy a basis for evaluating training in hospital pharmacy in relation to training required for licensure.
4. To provide educational organizations with a basis for determining the merits of training programs in hospital pharmacy.
5. To match training in hospital pharmacy with training in other professions.

On April 1, 1955, an application for evaluation of hospital pharmacy internships was sent to pharmacists supervising internships. To date, a number of applications have been returned and these are currently being studied to determine the adequacy of the proposed evaluation program and further, to make recommendations for carrying it out.

A Task Force was appointed late in 1955 to recommend a program for evaluation of internships in hospital pharmacy. The applications for evaluation were turned over to the Chairman, Mr. Herbert Flack, for review. At a meeting held in Washington in February 1956, the Task Force, along with representatives of the Division of Hospital Pharmacy, reviewed the suggested program. Changes in the evaluation form as recommended at this meeting are to be incorporated by the Chairman. The final report is to be submitted to the Division of Hospital Pharmacy.

Service to Hospital Pharmacists

Services of varying types have been made available to hospital pharmacists through the Division. What is provided is keyed to the trends in hospital pharmacy and the demands by hospital pharmacists from year to year. It is difficult to predict what the demands will be from time to time but we have usually developed new services slowly without doing anything on a "mass production" basis. What is in demand one year is often of little interest another year. As an example, this would apply to the demand for loan of hospital formularies. During the past few years we had a great number of requests for formularies on loan, and for reference material on the subject. However, at the present time, there are practically no requests for material on this subject. In this case, we assume that considerable literature on the subject has been published and that formularies have become readily available.

The Library, the Reference File, and members of the staff have provided helpful assistance in replying to specific information requests. Also, the publications are followed closely, a bibliography on hospital pharmacy has been maintained, and attendance at meetings has been helpful. It is of particular value for a person from the Division office to attend the institutes since current information on hospital pharmacy practices is made available at these meetings. Also, the discussions give background on current problems and trends in the field.

On reviewing the inquiries for information received during 1955, we find that approximately 625 inquiries were directed to the Division of Hospital Pharmacy. About one-half of these are specific information questions and require some reference work. Nearly all of these are related to hospital pharmacy practice. The other one-half of the questions are routine and can be answered with material we have readily available (in reprints, in the *Journal*, BULLETIN, or other publications, etc.). A small percentage of the questions fall into general categories such as career guidance (hospital pharmacy), speech material, etc.

In addition to the above, it should be noted that considerable time has been devoted to developing a system for handling requests for positions in hospital pharmacy. This service has been developed in cooperation with THE BULLETIN over a period of several years and is handled by Mrs. Dean. By setting up mimeographed forms, the work connected with handling positions has decreased by approximately one-half. This service appears to be appreciated by both hospital administrators and personnel people, as well as by the membership. It also gives us a key to trends in the field, opportunities, salaries, etc. As some indication of the extent of the service, during 1955, 52 requests from hospitals wanting pharmacists and 102 applications from pharmacists wanting positions, were received in the Division office.

Subjects on which questions are received vary considerably. During the past year, inquiries have been concerned chiefly with general information which would be helpful to pharmacists entering the field, education and internships in hospital pharmacy, Minimum Standards, etc. As a matter of record, the list given below will give some indication of the type of inquiries which are being received:

1. Available literature on hospital pharmacy.
2. Positions (wanted or open).
3. Graduate work and internships offered.
4. Reprints on subjects of particular interest.
5. Minimum Standard and Proposed Point-Rating Plan.
6. Floor plans.
7. Information on teaching student nurses.
8. Sources of equipment.
9. Laws and regulations affecting hospital pharmacy.
10. Slides available.
11. New drugs—when information is not readily available in the literature.
12. Specific formulas.
13. Statistics on hospital pharmacy practice.
14. Formularies and literature on the preparation of hospital formulary, work of the Pharmacy and Therapeutics Committee.
15. Miscellaneous—inquiries from foreign pharmacists wanting to come to the U.S. to practice, career guidance, etc.

Institutes on Hospital Pharmacy

Through the Division of Hospital Pharmacy, the Association has continued to work with the SOCIETY and the American Hospital Association in sponsoring the annual institutes. Two institutes were held in 1955 and both were successful. However, attendance at the one in Chicago was more than could be handled and applications were rejected, whereas, a smaller group (approximately 80) participated in the Atlanta Institute.

Plans are again being made to hold two such institutes in 1956—one at the University of Texas, June 18-22, and one at the University of Chicago, August 20-25. Tentative programs are being prepared and announcements will be made through the Division office at A.Ph.A. Headquarters.

With regard to future institutes, there has been general agreement that one should be held on the West Coast (San Francisco, Seattle, or Salt Lake City) within the next few years. It should also be noted that the Northern California Society of Hospital Pharmacists has made a request for an institute in San Francisco in 1958.

With regard to our cooperation in sponsoring the annual institutes, it should be noted that the American Hospital Association has taken responsibility for notifying speakers, setting up final programs, etc. However, the hospital pharmacists, representing the SOCIETY, the Division, and the local groups, have contributed a great deal in setting up the programs, publicity, and other phases of the institutes. There are some problems here because of budget limitations, clarification of policies, etc. In our long-range planning for carrying on the institute programs, it would therefore be advisable if some of the points concerning overall policy could be clarified.

The Catholic Hospital Association also holds one Institute for Hospital Pharmacists annually. This is held in conjunction with the C.H.A.'s Annual Convention. The A.Ph.A. and ASHP have also cooperated in sponsoring these institutes and officers of the Society have participated on the programs. The 1956 C.H.A. Institute will be held in Milwaukee in May.

Activities of the ASHP

Continued effort has been made since establishment of the Division of Hospital Pharmacy to coordinate activities of the American Society of Hospital Pharmacists with those of the A.Ph.A. The Secretary of the Society has followed closely the activities of hospital pharmacists and every effort has been made to carry out the intention of the Agreement between the A.Ph.A. and the ASHP. Society activities which have been carried out in the Division office fall into the following broad categories:

A. *Membership.* Since membership work involves both A.Ph.A. and ASHP, it seems advisable to consider this a specific Division activity. (*See also* Membership Activities) Mention should be made of the individual efforts of the Society's Committee on Membership and Organization, the affiliated chapters, and members in connection with this activity. From the Division office, we have given assistance when requested but these groups have carried on membership campaigns on an independent basis also.

B. *ASHP Secretarial Duties.* Duties of the Society are handled in the Division office. These have included various activities with particular attention given to contacts with officers and committees, assisting in plans for the Annual Meeting, handling details of finances and banking, and relationships involving other organizations.

As the Society grows, the routine work (contacts with members, and increasing number of committee activities, correspondence with affiliates and prospective affiliates, new projects, etc.) has increased. To the extent possible, special activities have been carried on by volunteers in the Society. Even so, the Secretary has attempted to keep in contact with all activities.

C. *Work with ASHP Affiliated Chapters.* The activities being carried out in the Division office in connection with ASHP affiliated chapters have increased greatly during the past few years. This is due to the fact that we now have 45 affiliates and several prospective affiliates. Further, we are making increased efforts to carry out our obligations to the Society in bringing about a closer relationship with the chapters. This effort is allied with the membership work and we are presently checking the membership roles of all affiliated chapters to determine whether or not hospital pharmacists participating in the local chapters are members of the A.Ph.A. and ASHP.

Also, contributing toward bringing about a closer relationship with the A.Ph.A. are the regular bulletins and releases which are sent to the secretaries of the chapters and to the members of the Executive Committee. Noting the minutes of the chapter meetings, we find that the bulletins and releases are called to the attention of the members and we have also had comment from time to time.

D. *Bulletin Work.* Work in connection with publication of The Bulletin can be covered under editorial, subscriptions, and advertising. The latter two are handled to a great extent by Mrs. Dean. Subscription work involves correspondence with subscribers and agencies, billing, processing, and keeping addressograph plates in order. Advertising work includes setting up files, handling contracts and insertion orders, proofs, and correspondence regarding all advertising. Also, envelopes for mailing each issue of The Bulletin are prepared at the Division office.

Preparation of some of the sections of The Bulletin directly related to Society activities, such as Affiliated Chapters, has been handled in the Division office by Miss Niemeyer, while Mrs. Dean has been responsible for Positions and New Members. Miss Niemeyer has also handled other portions of work on The Bulletin on an individual basis.

The books for the Bulletin Fund are handled by Mrs. Kittie Burt, the bookkeeper at the A.Ph.A. office. To the extent possible, the details of mailing checks, making out accounting forms, etc., are handled in the Division office.

Membership Activities

A. *Routine.* The complete detail of handling ASHP membership (new and renewals) is handled by Mrs. Dean. This is coordinated with A.Ph.A. membership work and involves billing, processing (checking A.Ph.A. records, statistics, sending certificates and cards), correspondence with members regarding dues, etc., handling changes of address, and keeping files in order. Membership letters and records of membership are prepared and sent to those concerned in the Society. Compilation of the list which appears annually in The Bulletin is also a part of this work.

B. *Prospective Members.* Through the Division office, we have made every effort to contact hospital pharmacists who are prospective members of both the A.Ph.A. and the ASHP. This has become a routine activity so far as checking names of hospital pharmacists received in correspondence, members of the affiliated chapters of the ASHP, lists of names which are submitted to us, and suggestions for contacts during the year. In recent months we have been able to give this activity some impetus since we have had an additional person working approximately half-time in the Division office.

The possibilities for interesting hospital pharmacists in membership in the A.Ph.A. and the ASHP appear to be great. This thinking is based on statistics (American Hospital Association, 1954) showing that 2,671 hospitals reported 4,157 full-time and 786 part-time pharmacists employed. Further, there are 6,447 hospitals in the United States which indicates that 3,776 hospitals either do not have the services of a pharmacist or prescriptions are available through a retail pharmacy. Our active membership (hospital pharmacists who are members of the A.Ph.A. and ASHP) is now approximately 2,100. It therefore appears that approximately one-half of the pharmacists practicing in hospitals in the U. S. are not members of the A.Ph.A. It is our opinion that there are additional pharmacists (retail) who are supplying services to hospitals who are not members of the national organizations. There is also a tremendous growth in the number of hospitals being built and the trend to always employ a pharmacist appears to be growing.

Results of the efforts within the ASHP and affiliated chapters have been encouraging but it is felt that further effort must now be made (1) to contact all hospital pharmacists in the country, and (2) to work closer with the affiliated chapters in connection with membership activities. We are now in the process of securing complete statistics on membership in affiliated chapters.

Recent efforts in carrying out a membership campaign were directed toward contacting a list of approximately 400 hospital pharmacists. The names were taken from various sources. A similar campaign was carried out in August, 1955. Further efforts in the membership activities could be applied as follows:

1. Check lists from affiliated chapters.

2. Send follow-up letter to the prospective members contacted in 1955 and 1956.

3. Consider the possibility of contacting all hospitals in the country for names of pharmacists.

Public and Professional Relations

A. *Exhibits.* During the past year we have continued to have an exhibit at the national hospital conventions. Although we had a hospital pharmacy exhibit which was built in 1954, it was agreed to use the National Formulary Exhibit at the 1955 meetings. The N. F. Exhibit was therefore used at the Convention of the Catholic Hospital Association held in St. Louis in May and at the Convention of the American Hospital Association held at Atlantic City in September. Although we depend on local people to assist with the exhibits to the extent possible, it is essential that someone from the Division office be at the conventions to coordinate arrangements.

B. *National Hospital Week and National Pharmacy Week.* In each instance, attention has been given to these events and the A.Ph.A. has offered awards for exhibits in hospitals. This activity is handled by Mr. Charles Rabe in connection with work of the A.Ph.A.'s Committee on Public Relations.

C. *Attendance at Meetings.* During the year the Chairman of the Policy Committee, the Director of the Division of Hospital Pharmacy, and the Assistant Director have attended a number of hospital and hospital pharmacy meetings. Although this activity has been somewhat limited, whenever visits can be made they contribute to the total program being carried out by the Division.

D. *Visitors to the A.Ph.A. Building.* An increasing number of hospital pharmacists and people concerned with pharmacy practice in hospitals visit A.Ph.A. Headquarters. On a number of occasions we have been able to help people, particularly recent graduates and interns, in connection with locating positions and also acquainting them with the services available through the Division.

In concluding this report, I would like to wish the new Director of the Division, Mr. Paul Parker, much success, and extend to him my very best wishes. I am sure that you people in the Society will give him excellent cooperation, as you have given me during the past several years. I also want to thank you for the cooperation and support you have given me. Thank you.

ASHP CONSTITUTION AND BY-LAWS

Constitution

AS REVISED 1954

Article I. Name, Objectives, and Definitions

Section 1. This SOCIETY shall be known as "The American Society of Hospital Pharmacists."

Section 2. The objectives of the SOCIETY shall be: (a) to provide the benefits and protection of a hospital pharmacist to the patient, to the institution which he serves, to the members of the allied health professions with whom he is associated, and to the profession of pharmacy, which they will receive through the skill and art of qualified hospital pharmacists; (b) to improve the qualifications and usefulness of hospital pharmacists through high standards of professional ethics, education, and attainments; (c) to assist in providing for a future adequate supply of such qualified hospital pharmacists; (d) to promote research in hospital pharmacy practices and in pharmaceutical problems in general; (e) to increase the dissemination of pharmaceutical knowledge by providing for interchange of information.

Section 3. A hospital pharmacist shall be defined as any legally qualified pharmacist currently practicing the art and science of pharmacy in a hospital or clinic, or actively engaged in the administration, planning, or supervision of pharmaceutical procedures in hospitals or clinics.

Article II. Membership

The membership of the SOCIETY shall consist of active, associate, and honorary members as provided in Chapter V of the By-Laws.

Article III. Officers

The officers of the SOCIETY shall be a President, a Vice-President, a Secretary, and a Treasurer. The President and Vice-President shall be elected annually for a term of one year as provided in the By-Laws. The President and Vice-President shall hold office for not more than two consecutive terms. The Secretary and Treasurer shall be elected every three years as provided in the By-Laws.

Article IV. Affiliated Chapters

A local or regional group of hospital pharmacists numbering ten or more active members of the SOCIETY and meeting the requirements for affiliation as outlined in Chapter IX, *Article 1* of the By-Laws, may become an affiliated chapter of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS upon approval of the Executive Committee of the SOCIETY.

Article V. Amendments

Every proposition to alter or amend this Constitution shall be submitted in writing by two active members at the first session of the Annual Meeting of the SOCIETY, and shall be approved by a plurality of the active membership in attendance at this session. It shall then be submitted to the entire active membership for vote by mail ballot, in the same manner as in the balloting for officers, Chapter I, *Articles 2* and *3* of the By-Laws, and shall be sent out as part of the ballot for officers. Should an amendment to the Constitution not be approved by a plurality vote at the Annual Meeting, it may then be referred to the active membership by mail ballot on the request of ten active members.

By-Laws

Chapter I. Election of Officers

Article 1. NOMINATION OF PRESIDENT, VICE-PRESIDENT, AND TREASURER. At the first session of each Annual Meeting of the SOCIETY, the President shall appoint a Committee of three members who shall nominate two candidates for each of the following offices: President and Vice-President. Every third year the Committee, on the recommendation of the Executive Committee, shall also nominate two or more candidates for the office of Treasurer. The Committee shall present its nominations at the final session of the Annual Meeting, at which time additional nominations may be made from the floor.

Article 2. BALLOTS. The names of the candidates together with a brief review of their professional backgrounds shall be submitted by the Secretary by mail to every active member of the SOCIETY within two months after their nomination. The member shall indicate on the ballot his choice of candidates for the offices to be filled and return the same by mail within 30 days of the date printed on the ballot.

Article 3. COUNTING OF BALLOTS. The ballots of the dues-paid members only, postmarked within 30 days of the date printed on the ballot, are to be submitted by the Secretary to the Board of Canvassers, who shall count the votes. The Board of Canvassers shall certify to the President and the Secretary the results of the election. The Secretary shall notify all candidates of the results of the election, and the results of the election shall also be published in THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

Article 4. INSTALLATION OF OFFICERS. The officers thus elected by a plurality of votes, together with the Secretary elected as hereinafter provided, shall be installed at the final session of the Annual Meeting of the SOCIETY following their election.

Article 5. ELECTION OF SECRETARY. The Secretary of the SOCIETY shall be nominated by the Executive Committee and elected every third year by the House of Delegates of the SOCIETY.

Chapter II. Duties of Officers

Article 1. PRESIDENT AND VICE-PRESIDENT. The President, or in his absence, the Vice-President, shall preside at all meetings. He shall have the usual administrative powers of his office, except as otherwise provided. He shall appoint all committees not otherwise provided for and shall be ex-officio member of all committees. He shall appoint the Board of Canvassers which shall consist of at least three active members of the SOCIETY. He shall, with approval of the Executive Committee, direct the activities and determine the policies of the SOCIETY. He shall cooperate with the activities of the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, working closely with the Director of the Division. He shall attempt to meet with each of the several affiliated chapters of the SOCIETY following his installation. He shall preside over the House of Delegates.

Article 2. SECRETARY. The Secretary shall keep minutes of the sessions of the SOCIETY and maintain a roster of its members. He shall notify individuals of their appointment to committees, notify members of the time and place of all meetings, and conduct the correspondence of the SOCIETY. He shall collect the dues of the members. The Secretary shall prepare and mail to all eligible voting members appropriate ballot forms for the annual voting of the SOCIETY. He shall be an ex-officio member of all standing committees. He shall assist where possible, with the secretarial activities of all standing and special committees. He shall keep the President informed of all activities by forwarding to him copies of pertinent correspondence. He shall present a written report of his work to the Annual Meeting of the SOCIETY. The Secretary shall be Secretary of the House of Delegates.

Article 3. TREASURER. The Treasurer and Secretary shall establish a bank account in the name of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS to receive, disburse, and account for all monies received from membership dues. The Treasurer, or in his incapacity, the Secretary, shall disburse them at the direction of the Finance Committee. The Treasurer shall have the account audited and shall prepare a statement of finances for the Annual Meeting.

Chapter III. Executive Committee

The Executive Committee shall consist of the officers of the SOCIETY, the chairman of each standing committee, the President-Elect, and the Past-President of the SOCIETY. It shall meet on the call of the President of the SOCIETY, and shall be empowered to act for the SOCIETY during the period between annual meetings.

Chapter IV. Accomplishment of Objectives

The objectives of the SOCIETY as outlined in Article I, *Section 2* of the Constitution shall be accomplished by: (a) establishing, implementing, and revising the Minimum Standard for Pharmacies in Hospitals; (b) working with the medical profession, in extending the rational use of medicaments; (c) acting as a clearing house for problems and challenges confronting hospital pharmacy; (d) maintaining proper liaison between pharmacists in hospitals, those engaged in general pharmaceutical practice, and those associated with the allied health professions; (e) developing and making available to the accredited colleges of pharmacy a course outline to serve as a guide for an undergraduate course in hospital pharmacy; (f) providing a standardized hospital training for graduates of accredited colleges of pharmacy through establishing, implementing, and revising the Minimum Standard for Pharmacy Internships in Hospitals; (g) actively cooperating with the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

Chapter V. Membership

Article 1. MEMBERS. The membership of the SOCIETY shall consist of individuals interested in the objectives of the SOCIETY.

(a) ACTIVE MEMBERS. Active members shall be hospital pharmacists as defined in Article I, *Section 3* of the Constitution, who are members of the American Pharmaceutical Association.

(b) HONORARY MEMBERS. Honorary members may be elected from among individuals who are or have been especially interested in, or who have made outstanding contributions to hospital pharmacy practice. Honorary members shall not pay dues nor shall they be eligible to vote or to hold office.

(c) ASSOCIATE MEMBERS. Associate members may be elected from among individuals other than hospital pharmacists who by their work in the health services, the teaching of prospective hospital pharmacists, or otherwise contributing to hospital pharmacy, make themselves eligible for membership. Associate members shall not be entitled to hold office or to vote. Associate members must be members of the American Pharmaceutical Association.

Article 2. DUES. Dues for active and associate members shall be five dollars ($5.00) per year, payable in advance.

Article 3. APPLICATIONS.

(a) ACTIVE MEMBERS. Applications for active membership shall be prepared on the standard form and forwarded to the Secretary of the SOCIETY. Dues should accompany the application as indicated in Chapter V, *Article 2* of the By-Laws. Applicants shall be sponsored by at least one active member of the SOCIETY. The Secretary may approve all applications for membership, or when there is doubt as to qualifications of the applicant, he may require concurrence by the Membership and Organization Committee. When an active member so changes his vocation as to no longer fit the definition of a hospital pharmacist, he shall automatically become an associate member with the rights and privileges of associate membership.

(b) HONORARY MEMBERS. Nominations for honorary membership shall be approved by unanimous vote of the Executive Committee and shall be presented for vote of the membership at an Annual Meeting.

(c) ASSOCIATE MEMBERS. In addition to the requirements for active membership as indicated in Chapter V, *Article 3* of the By-Laws, applicants for associate membership shall be sponsored by at least two active members of the SOCIETY.

Article 4. PERIOD OF MEMBERSHIP. The period of membership shall coincide with the period of membership in the American Pharmaceutical Association. Dues are payable and due on the anniversary date of this period. Membership in the SOCIETY and the obligation for dues will continue from year to year unless a member's resignation, signed by the member, is received by the Secretary prior to the end of the year for which dues have been paid.

Any member in arrears for dues for one year shall cease to be a member of the SOCIETY, provided that at least two weeks before his name is removed from the rolls, the Secretary shall send him a written notice of his delinquency together with a copy of the By-Laws pertaining to the subject. Such a person may be reinstated as a member provided his arrears have been paid and payment of current membership dues is made.

Article 5. CERTIFICATE. All members will receive from the Secretary an appropriate certificate attesting to membership in the SOCIETY.

Chapter VI. Standing Committees

There shall be five standing committees of the SOCIETY, each consisting of three or more members appointed by the President of the SOCIETY with concurrence of the Past-President and other officers of the SOCIETY.

Article 1. PROGRAM AND PUBLIC RELATIONS COMMITTEE. The Program and Public Relations Committee shall assume responsibility for the program at the Annual Meeting of the SOCIETY; shall assist in the sponsoring of the programs for local, state, and national conventions of medical, dental, hospital, and pharmaceutical associations, working in conjunction with the program committees of the respective local and regional hospital pharmacy associations; and shall maintain a reservoir of suitable material representative of hospital pharmacy for display at these various conventions. Where possible it shall assist in the formulation of the program for the annual Institute on Hospital Pharmacy. It shall assist the Secretary of the SOCIETY in collecting and making available for publication, information on the activities of hospital pharmacists. It shall seek the cooperation of the Division of Hospital Pharmacy in these activities.

Article 2. MEMBERSHIP AND ORGANIZATION COMMITTEE. The Membership and Organization Committee shall seek desirable members. It shall develop such plans as may be found desirable to establish state, district, and local affiliated groups of hospital pharmacists. It shall seek the cooperation of the Division of Hospital Pharmacy in these activities.

Article 3. MINIMUM STANDARDS COMMITTEE. The Minimum Standards Committee shall propose the Minimum Standard for Pharmacies in Hospitals and the Minimum Standard for Pharmacy Internships in Hospitals. It shall also develop a syllabus for specialized hospital pharmacy courses. It shall obtain opinions on hospital pharmacy educational practices from those persons offering such training, and present an annual review of such practices as differ from the the standards and that offer features desirable for other courses to incorporate. It shall review both the standards and the syllabus yearly in light of modern principles of hospital pharmacy practice and make necessary recommendations for revision. It shall seek the cooperation of the Division of Hospital Pharmacy in these activities.

Article 4. FINANCE COMMITTEE (ASHP). The Finance Committee shall consist of three members: the President, the Secretary, and the Treasurer, who may, without further action, pass on all expenditures. The Finance Committee shall prepare a budget for the succeeding year and submit it to the Executive Committee for approval.

Article 5. COMMITTEE ON PHARMACISTS IN GOVERNMENT SERVICE. The Committee on Pharmacists in Government Service shall assemble current information pertaining to problems affecting pharmacists in government service. Periodic review shall be made by the Committee of duties performed by hospital pharmacists in government service for the purpose of recommending methods conducive to the improvement of hospital pharmacy service. The findings and recommendations of the Committee shall be transmitted to the Director of the Division of Hospital Pharmacy, who shall be responsible for obtaining evaluation of the findings and recommendations for the purpose of resolving and implementing them, either through the national Committee on the Status of Pharmacists in Government Service, or other indicated organizations.

Chapter VII. Special Committees

The President may appoint such special committees as he feels are required for the activities of his term of office, each consisting of three or more members appointed by him with concurrence of the Past-President and other officers of the SOCIETY.

Chapter VIII. House of Delegates

Article 1. MEMBERSHIP. The House of Delegates shall consist of the Executive Committee of the SOCIETY, the chairman of each special committee of the SOCIETY, voting delegates, and fraternal delegates. Unless otherwise specified, meetings shall be open to all hospital pharmacists. The power of vote is restricted to the Executive Committee, special committee chairmen, and voting delegates.

(a) VOTING DELEGATE. Each affiliated chapter of the SOCIETY shall be entitled to designate such delegates as its membership warrants and in a manner to be determined by each chapter. Each affiliated chapter with 50 or fewer active members is entitled to one delegate. Each affiliated chapter with more than 50 active members is entitled to one delegate for each additional 50 active members.

(b) FRATERNAL DELEGATE. Any branch or department of the United States Government such as the Army, Navy, Air Force, Public Health Service, and Veterans Administration shall

be entitled to designate one delegate. Such fraternal delegates may be granted the privilege of the floor but shall not be entitled to vote. The Secretary of the Society shall annually initiate an invitation to the ranking medical officer of each of the governmental health services to appoint said delegate.

Article 2. SELECTION OF DELEGATES. Delegates shall be designated by each affiliated chapter and confirmed by the Secretary of the Society. Organizations entitled to membership must notify the Secretary of the names of delegates and alternates prior to each Annual Meeting so that credentials may be prepared.

Article 3. MEETINGS. The House of Delegates shall meet at a time designated by the President of the Society, on the day preceding the first day of the Annual Meeting of the Society. At the discretion of the President, additional sessions of the House of Delegates may be called during the period of the Annual Meeting.

Article 4. OFFICERS. The officers of the House of Delegates shall be the officers of the Society.

Article 5. PURPOSE. The House of Delegates shall assist the Executive Committee in the formulation of policy. Where possible, all items of new business, proposed amendments to the Constitution and By-Laws, and all controversial matters should be presented first to the House of Delegates and then to the first session of the Annual Meeting. It shall elect the Secretary of the Society. Each organization entitled to representation shall provide its delegate with a concise report of the activities and recommendations of the organizations, which shall be presented at the call for reports. This report will also be presented in writing to the Secretary at the meeting. This will provide an opportunity for each affiliated chapter, through its delegate, to present comments and recommendations on local and national matters pertaining to hospital pharmacy practice. If it is impossible for an organization to send a delegate to this meeting, said organization shall submit its written report to the Secretary prior to the meeting.

Article 6. ORDER OF BUSINESS. At stated or adjourned meetings, business shall proceed in the following order:

1. Call to order.
2. Roll call of delegates.
3. Reading and adoption of minutes.
4. Appointment of committees.
5. Receipt of reports and other communications to the House of Delegates.
6. Unfinished business.
7. New business.
8. Adjournment.

Chapter IX. Affiliated Chapters

Article 1. REQUIREMENTS FOR AFFILIATION.

(a) All members of every affiliated chapter shall be members of the American Society of Hospital Pharmacists. There must be a minimum of ten active members before a group may apply for affiliation with the national organization.

(b) The chapter shall submit a list of officers and membership, minutes of the meeting at which the request for affiliation was approved, and a statement of frequency of meetings. Subsequent changes in officers and in times of meetings should be forwarded to the Secretary of the Society.

(c) The Constitution and By-Laws shall be approved by the Executive Committee of the Society and should be patterned after the Constitution and By-Laws of the Society. Any subsequent change in the Constitution and By-Laws must be approved by the Executive Committee of the Society.

(d) The formal application for affiliation should be initiated by the President and Secretary of the chapter and directed to the Secretary of the Society who will submit such application to the Executive Committee of the Society for approval.

Article 2. MEMBERSHIP. Membership in affiliated chapters shall be restricted to active, associate, and honorary members as defined in Chapter V, *Article 1* of the By-Laws. Persons not so classified may attend meetings of the Chapter at the invitation of the Executive Committee of the chapter.

Article 3. DUES. Dues in affiliated chapters may be set at the discretion of the Executive Committee of the chapter.

Article 4. REPORTS. A copy of the minutes of every meeting of affiliated chapters should be sent to the Secretary of the Society immediately following each meeting, and not later than ten days following the meeting date. Additions to and changes in the membership of the chapter should be included therein.

Article 5. REPRESENTATIVES TO THE HOUSE OF DELEGATES. Each affiliated chapter is entitled to representation in the House of Delegates as outlined in Chapter VIII. *Article 1,* (a) of the By-Laws of the Society.

Chapter X. Publications

Article 1. OFFICIAL PUBLICATION. The Bulletin of the American Society of Hospital Pharmacists shall be the official publication of the Society. All papers presented at the Annual Meeting of the Society shall be submitted to the Editor of The Bulletin for review and, if suitable, for publication. Papers may be released for publication elsewhere on the approval of the Editor of The Bulletin.

Article 2. EDITOR. The editor of The Bulletin shall be appointed by the Executive Committee of the Society.

Article 3. FINANCES. (The Bulletin).

(a) The Secretary of the Society shall establish a bank account in the name of The Bulletin of the American Society of Hospital Pharmacists. All monies received from advertising in, sale of, and subscriptions to The Bulletin and all bills relative to publishing The Bulletin shall be handled through this account. The Editor of The Bulletin and the Secretary of the Society shall receive, disburse, and account for all monies in this account. This account shall be audited annually.

(b) The Executive Committee of the Society shall be empowered to transfer such excess funds as may accrue in this account to either the American Society of Hospital Pharmacists or to the Division of Hospital Pharmacy.

(c) A contribution of one dollar per member will be made annually from the Society funds toward publication of The Bulletin. The amount for each year shall be determined by the total membership as reported at the Annual Meeting.

Chapter XI. Annual Meetings

Annual meetings of the Society shall be held in conjunction with annual meetings of the American Pharmaceutical Association.

Chapter XII. Quorum

Fifteen members shall constitute a quorum for an Annual Meeting.

Chapter XIII. Order of Business

At stated or adjourned meetings, business shall proceed in the following order:

1. Call to order.
2. Roll call of delegates.
3. Reading and adoption of minutes.
4. Appointment of committees.
5. Ratification of special committees.
6. Receipt of reports and other communications to the Society.
7. Unfinished business.
8. New Business.
9. Report of Resolutions Committee.
10. Report of Nominating Committee.
11. Installation of officers.
12. Adjournment.

Chapter XIV. Affiliation

The Society shall be affiliated with the American Pharmaceutical Association and subject to such rules and regulations as may be mutually agreed upon to govern the Society.

Chapter XV. Seal and Insignia

Article 1. SEAL. The Society shall have a seal which shall consist of the device of a circle with the word "Seal" in the center surrounded by the words "American Society of Hospital Pharmacists" arranged within the perimeter.

Article 2. INSIGNIA. The insignia of the Society shall consist of the device of a mortar and pestle, the lip of the mortar being at about 250° and the handle of the pestle at about 315°, with the words "American Society of Hospital Pharmacists" inscribed through this in a semicircle, meeting the pestle on the left at juncture of mortar and pestle, the whole of this centered in a white cross on a green background.

Chapter XVI. Amendments

Every proposition to alter or amend these By-Laws shall be submitted in writing by two active members at the first session of the Annual Meeting of the Society and voted upon at the final session of the same Annual Meeting. A plurality of votes is required for approval.

ASHP CERTIFICATE OF INCORPORATION

WE THE UNDERSIGNED, all being of full age and citizens of the United States, and two of whom are residents of the District of Columbia, desiring to form a corporation pursuant to and in conformity with Title 29 of Chapter 6 of the 1940 Code of the District of Columbia, do certify:

FIRST: That the name of the corporation shall be AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, INC.

SECOND: That the period of its duration shall be perpetual.

THIRD: The particular objects of the corporation shall be:

(a) To provide the benefits and protection of a qualified hospital pharmacist to the patient, to the institution which he serves, to the members of the allied health professions with whom he is associated, and to the profession of pharmacy in general;

(b) To improve the qualifications and usefulness of hospital pharmacists through the development of high standards of professional ethics, education and attainment;

(c) To assist in providing for a future adequate supply of such qualified hospital pharmacists;

(d) To promote research in hospital pharmacy practices and in pharmaceutical problems in general;

(e) To increase the dissemination of pharmaceutical knowledge by providing for interchange of information, nationally and internationally.

(f) To assist in fostering the rational and safe use of drugs and medications in hospitals, clinics, diagnostic centers and related institutions, through the collection, study, analyses, evaluation, publication and distribution of information relating to the actions, uses, side effects, contraindications, toxicities, precautions, dosage and dosage-forms of drugs and pharmaceuticals with the object of coordinating the efforts of pharmacists with those of physicians and others in the allied health field, to better serve the health needs of the public;

(g) To plan, organize and conduct, individually as well as in cooperation with related professional organizations, educational programs, institutes, seminars, conferences and special lectures and demonstrations in order to further the professional, scientific and technical abilities of hospital pharmacists to better serve the interests of public health and patient care.

(h) To stimulate, foster, evaluate and encourage the establishment and improvement of specialized training programs in hospital pharmacy, including internships, residencies, indoctrination courses and similar programs of organized training, in order to insure the entrance of properly qualified individuals into the specialty of hospital pharmacy.

(i) To gather, prepare and publicize articles, bibliographies, formularies, studies, surveys, compilations and other forms of information pertaining to the professional, scientific, administrative, economic and technical aspects of hospital pharmacy, with the object of increasing the services of hospital pharmacists to public health.

(j) To plan, organize, initiate and conduct surveys and studies on basic problems and questions pertaining to pharmacy and related services in hospitals, clinics, diagnostic centers and related institutions in order to extend and improve the services of hospital pharmacists to the public health in general, and to the sick of the community in particular.

The objectives of the Society as outlined in the foregoing Article shall be accomplished by:

(a) Establishing, implementing and revising the Minimum Standard for Pharmacies in Hospitals;

(b) Working with the medical profession in extending the rational use of medicaments;

(c) Acting as a clearing house for problems and challenges confronting hospital pharmacy;

(d) Maintaining proper liaison between pharmacists in hospitals, those engaged in general pharmaceutical practice, and those engaged in, or associated with, the allied health professions;

(e) Developing and making available to the accredited colleges of pharmacy a course outline to serve as a guide for an undergraduate course in hospital pharmacy;

(f) Providing a standardized hospital training for graduates of accredited colleges of pharmacy through establishing, implementing and revising the Minimum Standard for Pharmacy Internships in Hospitals;

(g) Actively cooperating with the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

This corporation shall at all times cooperate with and further the cause of the American Pharmaceutical Association, its aims and objects. In general, it shall do all and everything necessary, suitable and proper for the accomplishment of any of the purposes or the attainment of any of the objects or the furtherance of any of the purposes hereinbefore set forth. It may have one or more affiliated Chapters and exercise all or any of its objects and powers anywhere in the United States and in all or any foreign countries.

FOURTH: This is a non-profit corporation; no stock in it shall be sold or authorized and no member, director or officer shall derive any profit from its operations. It is intended that the corporation shall be conducted so as to be entitled to receive any and all tax benefits or exemptions which may from time to time be granted to non-profit, educational and eleemosynary corporations and the like, and to all firms, corporations, members and individuals making gifts, contributions or bequests thereto.

The corporation may purchase, lease and dispose of such real or personal property as may be necessary for the purposes of its business, and receive any gift, device, bequest and contribution necessary for its maintainance, and to promote its objectives. It shall not be responsible for acts of individual members and affiliated national and local groups, including state and local Chapters. The property of its members, directors and officers shall not be subject to, or charged with, the payment of corporate debts or obligations.

FIFTH: The address of its principal office in the District of Columbia shall be American Pharmaceutical Association Headquarters, 2215 Constitution Avenue, N.W., Washington, D. C.

SIXTH: The initial board of directors shall consist of nine members who shall serve as directors until the first annual meeting or until their successors are elected and qualify. Their names and addresses are:

George F. Archambault, 5916 Melvern Drive, Bethesda, Md.
Claude Busick, St. Joseph's Hospital, Stockton, Calif.
Gloria Niemeyer, 2215 Constitution Avenue, N.W., Washington, D.C.
Sister Mary Berenice, St. Mary's Hospital, St. Louis, Mo.
Allen V. R. Beck, Indiana University Medical Center, Indianapolis, Ind.
Anna D. Thiel, Jackson Memorial Hospital, Miami, Fla.
John Scigliano, Clinical Center, Nat'l Institutes of Health, Bethesda, Md.
Paul F. Parker, University of Chicago Clinics, Chicago, Illinois
Charles G. Towne, V. A. Center, Wilshire-Sawtelle, Los Angeles, Calif.

The names and addresses of the incorporators are:

George F. Archambault, 916 Melvern Drive, Bethesda, Md.
Grover C. Bowles, 3505 T Street, N.W., Washington, D. C.
Gloria Niemeyer, 2426 19th Street, N.W., Washington, D. C.

The corporation reserves the right to amend, alter, change or repeal any of the provisions of this Certificate of Incorporation, and to make and amend by-laws for the regulation and management of its affairs not inconsistent with the laws of the District of Columbia and the Constitution of the United States.

IN TESTIMONY we have this 9 day of March, 1955 hereunto set our hands and seals.

George F. Archambault
Grover C. Bowles
Gloria Niemeyer

DISTRICT OF COLUMBIA, ss:

I, *Kittie A. Burt*, a notary public in and for the District of Columbia, do hereby certify that GEORGE F. ARCHAMBAULT, GROVER C. BOWLES and GLORIA NIEMEYER, parties to a Certificate of Incorporation bearing date 9 march 1955 and hereto annexed, being personally well known to me, personally appeared before me in said District of Columbia on the day and year aforesaid, and severally acknowledged the same before me and signed the same for the purpose therein set forth.

Given under my hand and notarial seal this 9 day of March, 1955.

Kittie A. Burt
Notary Public, District of Columbia

MEMBERSHIP BY STATES

Alabama

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1942-43 Columbus, Ohio Sept. 1943	H.A.K. Whitney	Donald A. Clarke	Hazel Landeen	Sister Ludmilla
1943-44 Cleveland, Ohio Sept. 1944	Don E. Francke	Hazel Landeen	I. T. Reamer	Sister Mary John
1944-45 no meeting	Don E. Francke	Vacant	I. T. Reamer	Sister Mary John
1945-46 Pittsburgh, Pa. Aug. 1946	Don E. Francke	Anna D. Thiel	I. T. Reamer	Sister Mary John
1946-47 Milwaukee, Wis. Aug. 1947	Hans S. Hansen	Jennie Banning	Walter Frazier	Sister Gladys Robinson
1947-48 San Francisco, Calif. August 9-10, 1948	John J. Zugich	Margaret Gary	Leo Godley	Sister Mary Etheldreda
1948-49 Jacksonville, Fla. Apr. 25-26, 1949	W. Arthur Purdum	Geraldine Stockert	J. R. Cathcart	Sister Jeanne Marie
1949-50 Atlantic City, N.J. May 1-2, 1950	Herbert L. Flack	W. Paul Briggs	Gloria Niemeyer	Sister M. Junilla
1950-51 Buffalo, N. Y. Aug. 27-28, 1951	I. T. Reamer	Grover C. Bowles	Gloria Niemeyer	Sister M. Jeanette
1951-52 Philadelphia, Pa. Aug. 21-22, 1952	Walter Frazier	Jane Rogan	Gloria Niemeyer	Sister Mary Raphael
1952-53 Salt Lake City, Utah Aug. 16-18, 1953	Grover C. Bowles	George Phillips	Gloria Niemeyer	Sister Mary Florentine
1953-54 Boston, Mass. Aug. 22-24, 1954	Allen V. R. Beck	Adela Schneider	Gloria Niemeyer	Anna Thiel
1954-55 Miami Beach, Fla. May 1-3, 1955	George F. Archambault	Claude Busick	Gloria Niemeyer	Sister Mary Berenice
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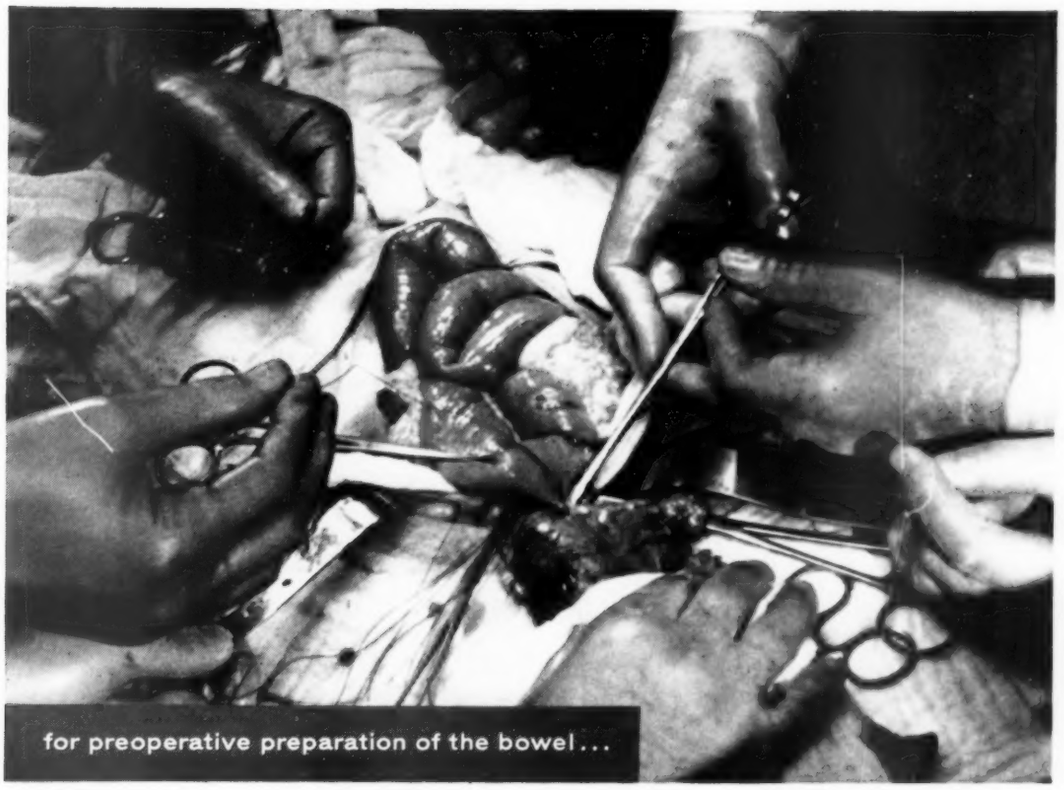

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